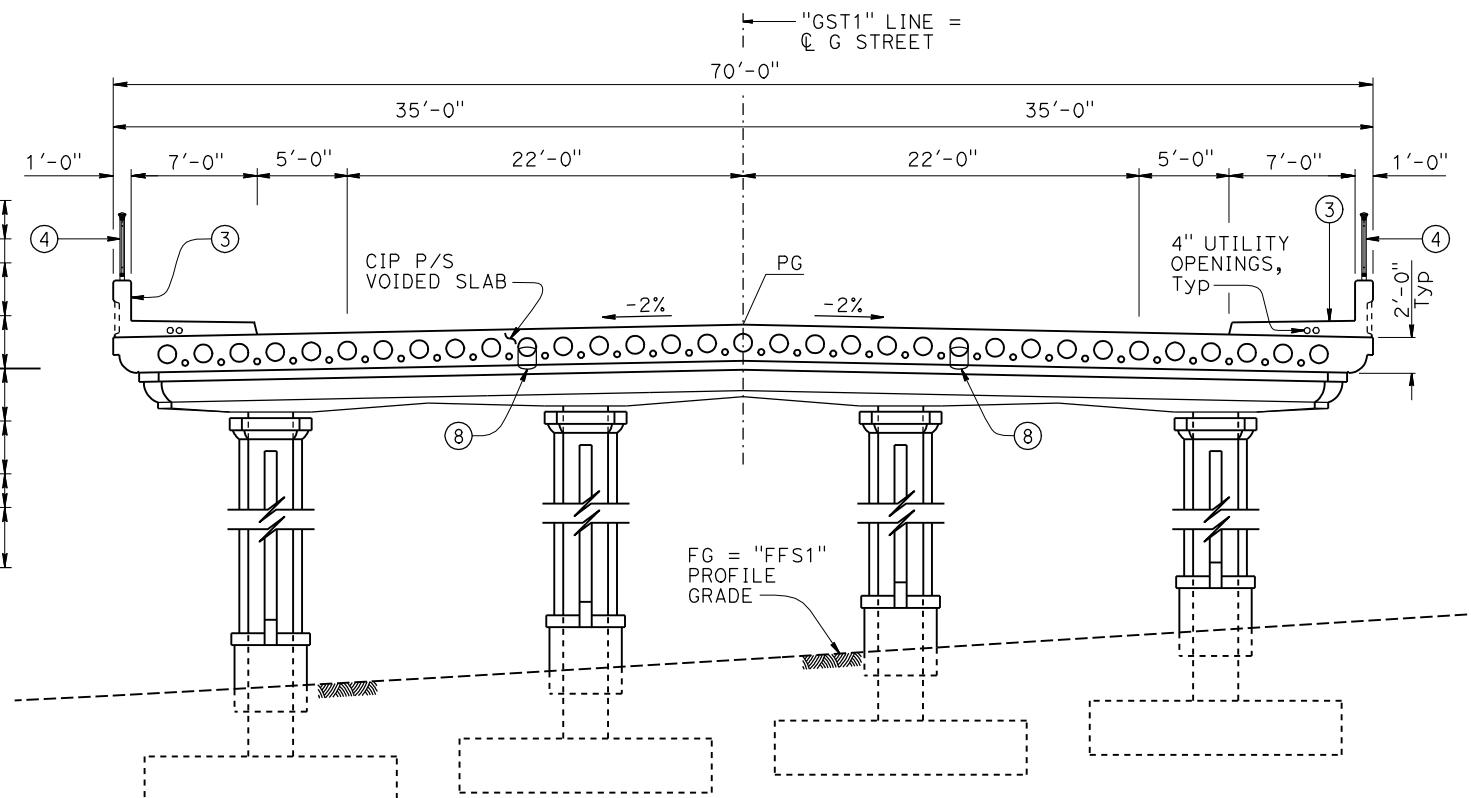
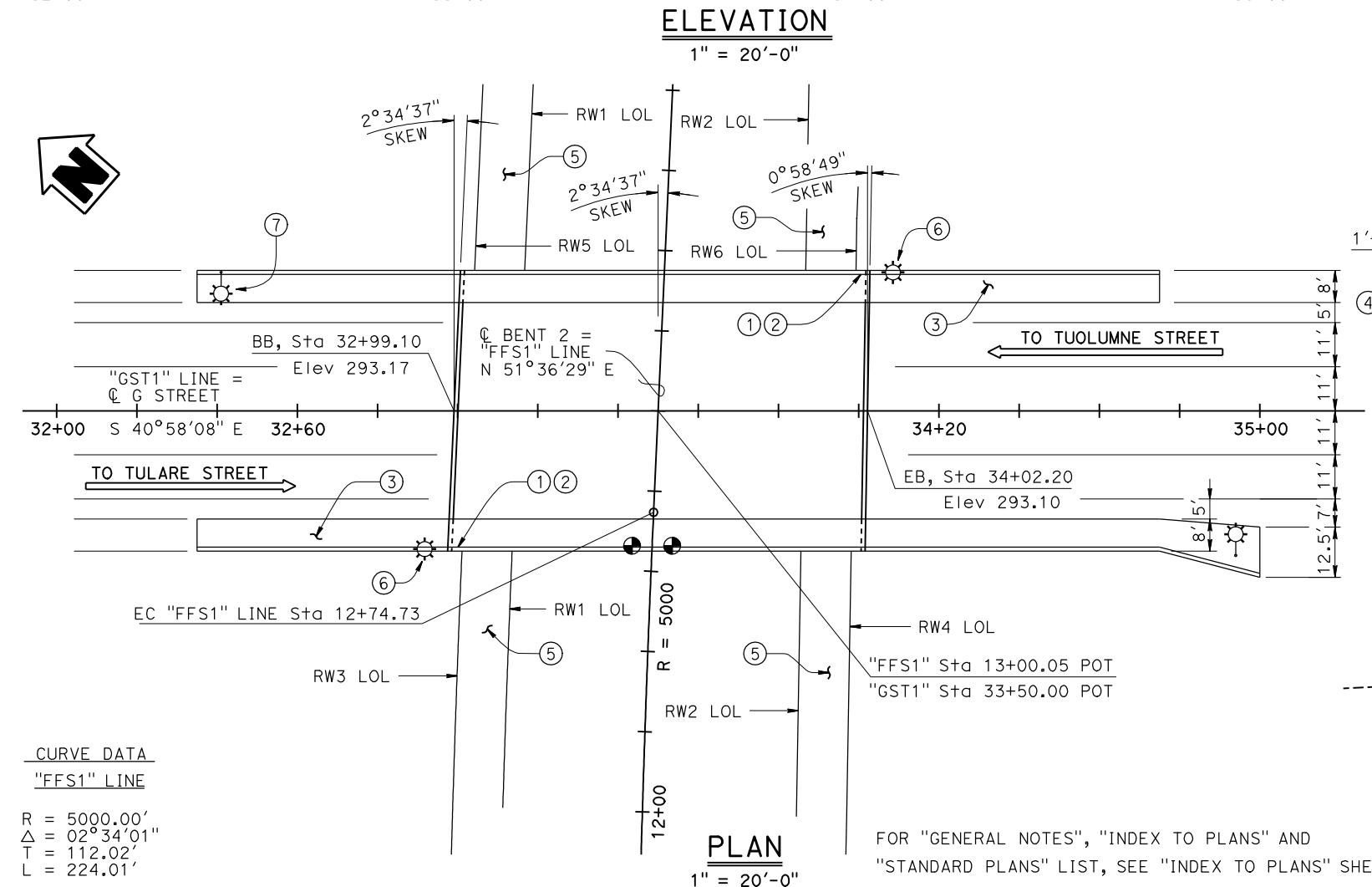
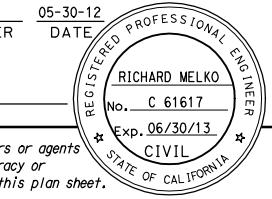


DATUM ELEVATION = 250.00'
32+00 33+00 34+00 35+00



TYPICAL SECTION
 $\frac{3}{16}$ " = 1'-0"

FRITZ HOFFMAN DESIGN ENGINEER	DESIGN	BY DAVID ALVAREZ	CHECKED	HILARIO TUAZON	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY": PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO.	G STREET OVERCROSSING
	DETAILS	BY SUSAN NG	CHECKED	DON NGUYEN-TAN	LAYOUT	BY DAVID ALVAREZ	CHECKED		42C0669	
	QUANTITIES	BY DON NGUYEN-TAN	CHECKED	HILARIO TUAZON	SPECIFICATIONS	BY V. RENGANATHAN	CHECKED		POST MILE	
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS									UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1



INDEX TO PLANS

SHEET NO.	TITLE
1.	GENERAL PLAN
2.	INDEX TO PLANS
3.	DECK CONTOURS
4.	FOUNDATION PLAN
5.	ABUTMENT LAYOUT
6.	ABUTMENT DETAILS NO. 1
7.	ABUTMENT DETAILS NO. 2
8.	RETAINING WALL LAYOUT NO. 1
9.	RETAINING WALL LAYOUT NO. 2
10.	RETAINING WALL LAYOUT NO. 3
11.	RETAINING WALL LAYOUT NO. 4
12.	BENT LAYOUT
13.	BENT DETAILS NO. 1
14.	BENT DETAILS NO. 2
15.	TYPICAL SECTION
16.	SLAB DETAILS
17.	LONGITUDINAL SECTION
18.	TOP SLAB REINFORCEMENT
19.	BOTTOM SLAB REINFORCEMENT
20.	ARCHITECTURAL TREATMENT NO. 1
21.	ARCHITECTURAL TREATMENT NO. 2
22.	ARCHITECTURAL TREATMENT NO. 3
23.	ARCHITECTURAL TREATMENT NO. 4
24.	ARCHITECTURAL TREATMENT NO. 5
25.	ARCHITECTURAL TREATMENT NO. 6
26.	ARCHITECTURAL TREATMENT NO. 7
27.	ARCHITECTURAL TREATMENT NO. 8
28.	ARCHITECTURAL TREATMENT NO. 9
29.	LOG OF TEST BORINGS NO. 1
30.	LOG OF TEST BORINGS NO. 2
31.	LOG OF TEST BORINGS NO. 3
32.	LOG OF TEST BORINGS NO. 4
33.	LOG OF TEST BORINGS NO. 5
34.	LOG OF TEST BORINGS NO. 6
35.	LOG OF TEST BORINGS NO. 7

STANDARD PLANS DATED 2010

A10A	ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
A10B	ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
A10D	LINES AND SYMBOLS (SHEET 2 OF 3)
A10E	LINES AND SYMBOLS (SHEET 3 OF 3)
A10F	LEGEND - SOIL (SHEET 1 OF 2)
A10G	LEGEND - SOIL (SHEET 2 OF 2)
A10H	LEGEND - ROCK
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
RSP B3-1A	RETAINING WALL TYPE 1 (CASE 1)
RSP B3-5	RETAINING WALL DETAILS NO.1
B3-6	RETAINING WALL DETAILS NO.2
B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
B7-1	BOX GIRDER DETAILS
B8-5	CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
B11-54	CONCRETE BARRIER TYPE 26
B14-3	COMMUNICATION AND SPRINKLER CONTROL CONDUITS (CONDUIT LESS THAN 4")
ES-1A	ELECTRICAL SYSTEMS (LEGEND, NOTES, AND ABBREVIATIONS)
ES-6A	ELECTRICAL SYSTEMS (LIGHTING STANDARD, TYPES 15 AND 21)
ES-6B	ELECTRICAL SYSTEMS (ELECTROLIER ANCHORAGE AND GROUTING FOR TYPES 15 AND 21 BARRIER RAIL MOUNTED)
ES-9A	ELECTRICAL SYSTEMS (STRUCTURE PULL BOX INSTALLATIONS)
ES-9B	ELECTRICAL SYSTEMS (CONDUIT RISER AND EXPANSION FITTING, STRUCTURE INSTALLATIONS)
ES-9C	ELECTRICAL SYSTEMS (STRUCTURE PULL BOX)
ES-9D	ELECTRICAL SYSTEMS (STRUCTURE PULL BOX INSTALLATIONS)
ES-9E	ELECTRICAL SYSTEMS (FLUSH SOFFIT, PENDANT SOFFIT AND WALL LUMINAIRE, STRUCTURE INSTALLATIONS)
ES-9F	ELECTRICAL SYSTEMS (FLUSH SOFFIT LUMINAIRE DETAILS)

STANDARD PLAN SHEET No.

DETAIL No.

GENERAL NOTES

LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:

AASHTO LRFD Bridge Design Specifications, 4th edition with the November, 2011 Interims and the California Amendments

SEISMIC DESIGN:

Caltrans Seismic Design Criteria (SDC), Version 1.6 dated November, 2010

DEAD LOAD:

Includes 35 psf for future wearing surface.

LIVE LOADING:

HL93 and permit design load.

SEISMIC LOADING:

See Acceleration Response Spectrum

CONCRETE:

$f_y = 60$ ksi

See Prestressing Notes and Concrete Strength and Type Limits

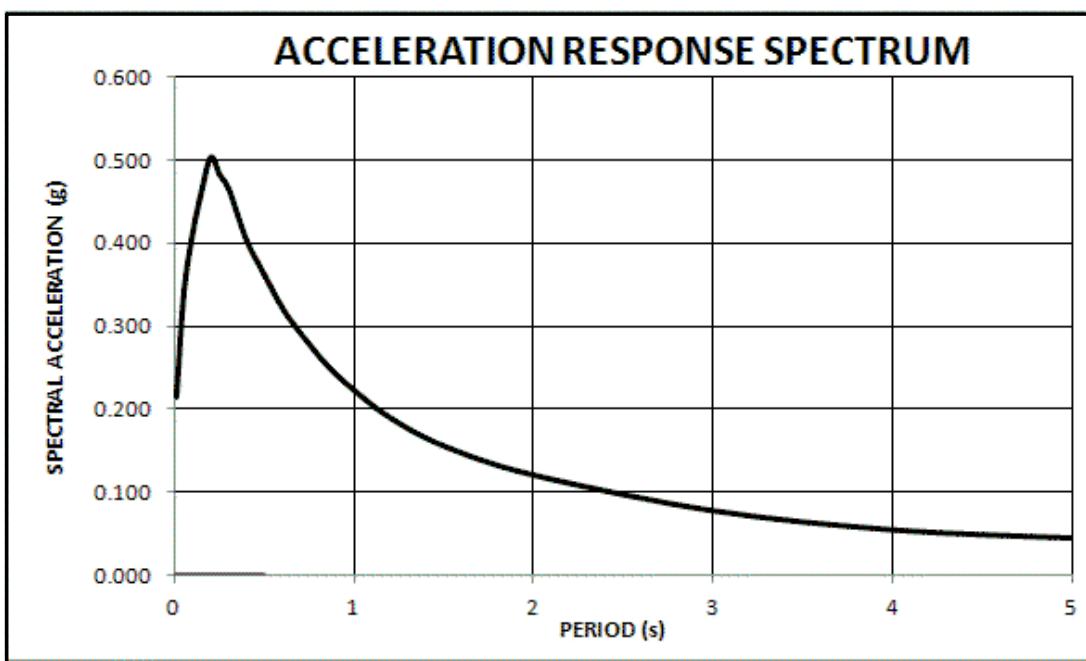
DIST	COUNTY	ROUTE	POST MILES	SHEET NO.	TOTAL SHEETS
06	Fre				

Richard Melko
REGISTERED CIVIL ENGINEER
05-30-12 DATE
RICHARD MELKO
No. C 61617
REGISTERED PROFESSIONAL ENGINEER
CALIFORNIA STATE OF
Exp. 06/30/13 CIVIL

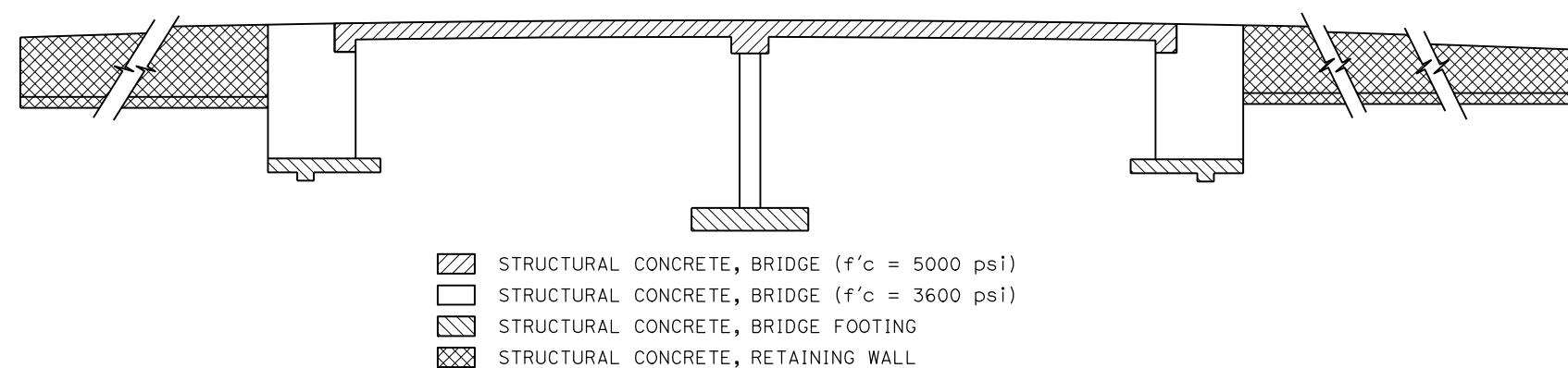


CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Support Location	Working Stress Design (WSD)		Load and Resistance Design (LRFD)		
	Permissible Gross Bearing Capacity (ksf)	Allowable Gross Bearing Capacity (ksf)	Service Permissible Net Contact stress (Settlement) (ksf)	Strength Factored Gross Nominal Bearing Resistance $\phi = 0.45$ (ksf)	Extreme Event Factored Gross Nominal Bearing Resistance $\phi = 1.0$ (ksf)
Abutment 1	3.8	8.5	N/A	N/A	N/A
Bent 2	N/A	N/A	4.0	29.3	N/A
Abutment 3	3.8	8.5	N/A	N/A	N/A



ARS CURVE

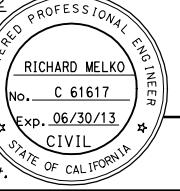


CONCRETE STRENGTH AND TYPE LIMITS

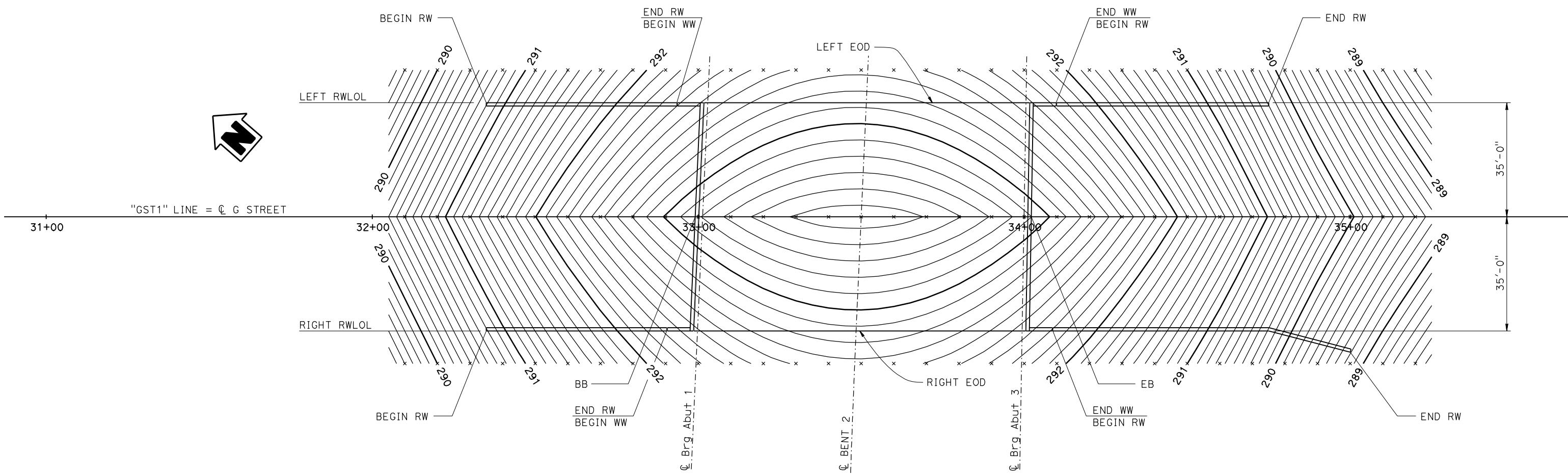
$\frac{3}{32}'' = 1'-0''$

DESIGN BY DAVID ALVAREZ	CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DEPARTMENT OF TRANSPORTATION DESIGN BRANCH 6	BRIDGE NO. 42C0669	G STREET OVERCROSSING
DETAILS BY SUSAN NG	CHECKED DON NGUYEN-TAN		POST MILE	INDEX TO PLANS
QUANTITIES BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON		UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 05-05-12 05-10-12
		FILE => 42c0669-b-itp.dgn	SHEET OF 2 35	USERNAME => s120745 DATE PLOTTED => 30-MAY-2012 TIME PLOTTED => 16:34

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre				

Richard Melko 05-30-12
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE
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DECK CONTOURS

1" = 15'-0"

NOTES:

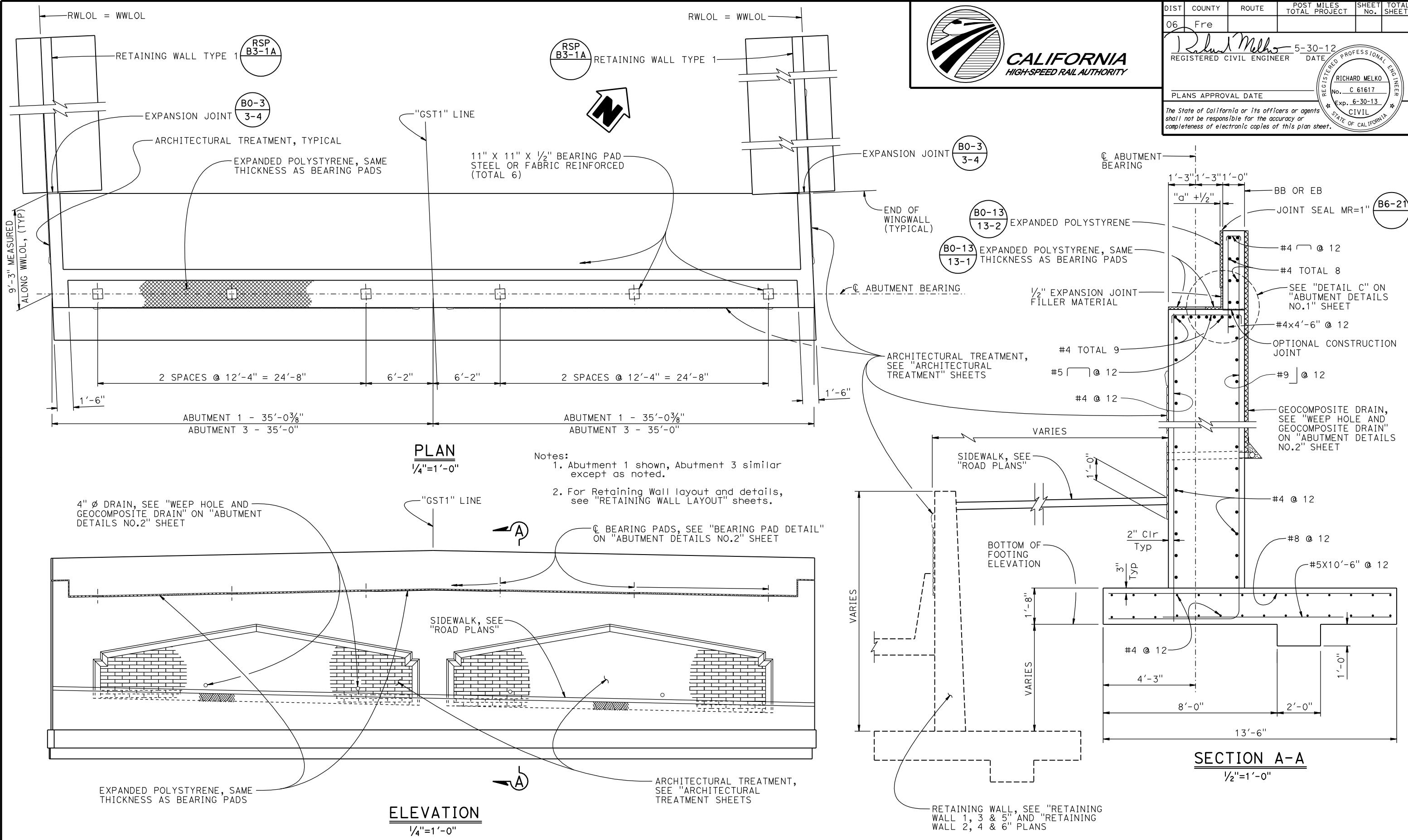
- Contour interval = 0.1'
- x = 10'-0" Intervals along station line
- Contours do not include camber

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY DAVID ALVAREZ	CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0669	G STREET OVERCROSSING	
	DETAILS	BY SUSAN NG	CHECKED DON NGUYEN-TAN			POST MILE	DECK CONTOURS	
	QUANTITIES	BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON			UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES →
			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3			REVISION DATES 05-18-12 05-24-12	SHEET OF 3 35



CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	HEET NO.	TOTAL SHEETS
06	Fre				
<i>RICHARD MELKO</i>			5-30-12		
REGISTERED CIVIL ENGINEER			DATE	<div style="text-align: center;"> REGISTERED PROFESSIONAL ENGR. RICHARD MELKO No. C 61617 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA </div>	
PLANS APPROVAL DATE					
<i>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</i>					



	DESIGN	BY D. Alvarez	CHECKED H. Tuazon	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DESIGN BRANCH 6	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO. 42C0669	G STREET OVERPASSING ABUTMENT LAYOUT			
	DETAILS	BY D. Pato	CHECKED D. Alvarez			POST MILE				
	QUANTITIES	BY D. Alvarez	CHECKED H. Tuazon							
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
						5-2-12	5-22-12		5	35

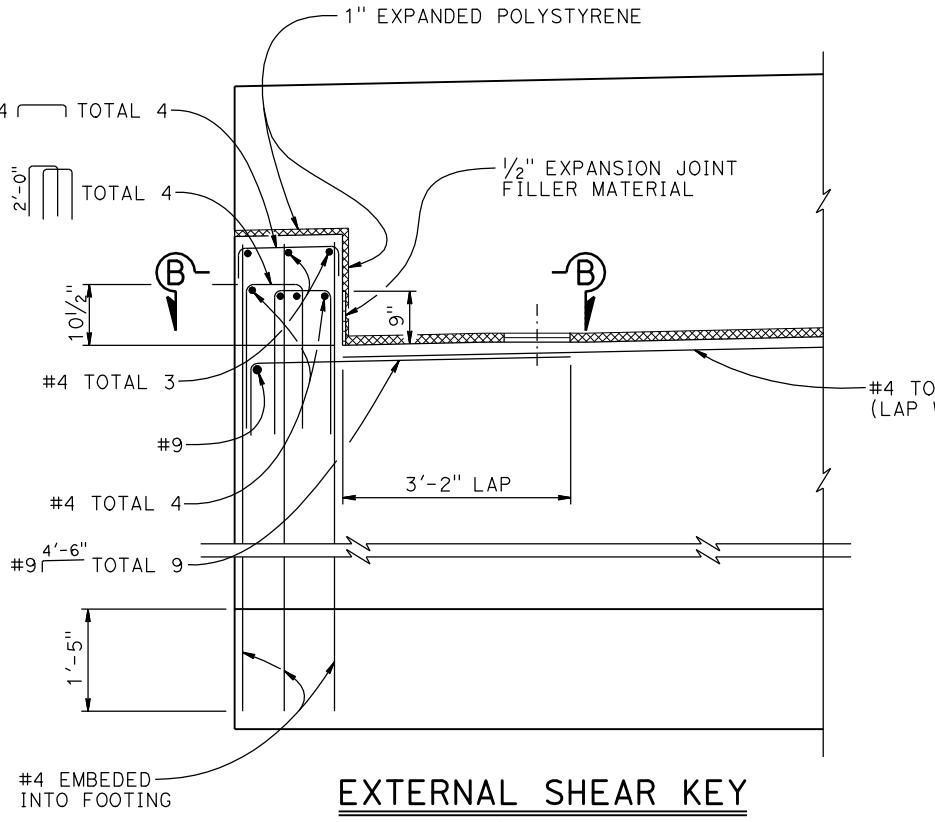
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre				

Roland Melko 5-30-12
REGISTERED CIVIL ENGINEER DATE
RICHARD MELKO
No. C 61617
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

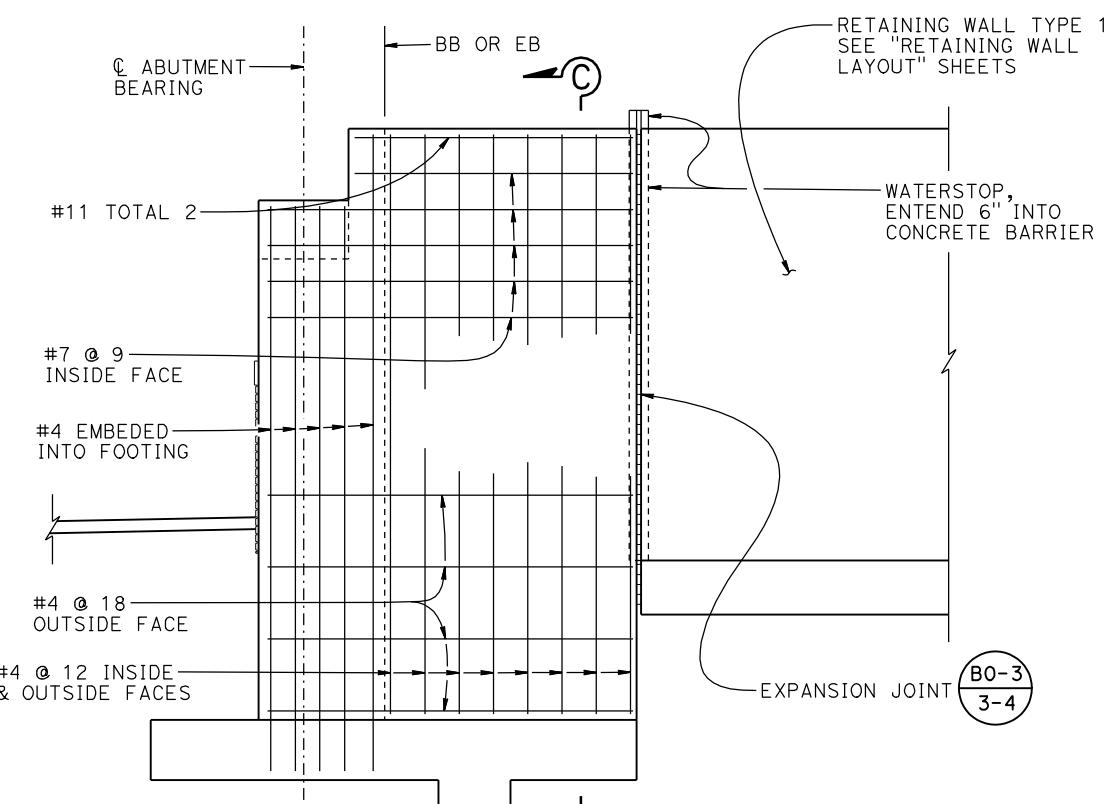
REGISTERED PROFESSIONAL ENG. ING.
RICHARD MELKO

PLANS APPROVAL DATE
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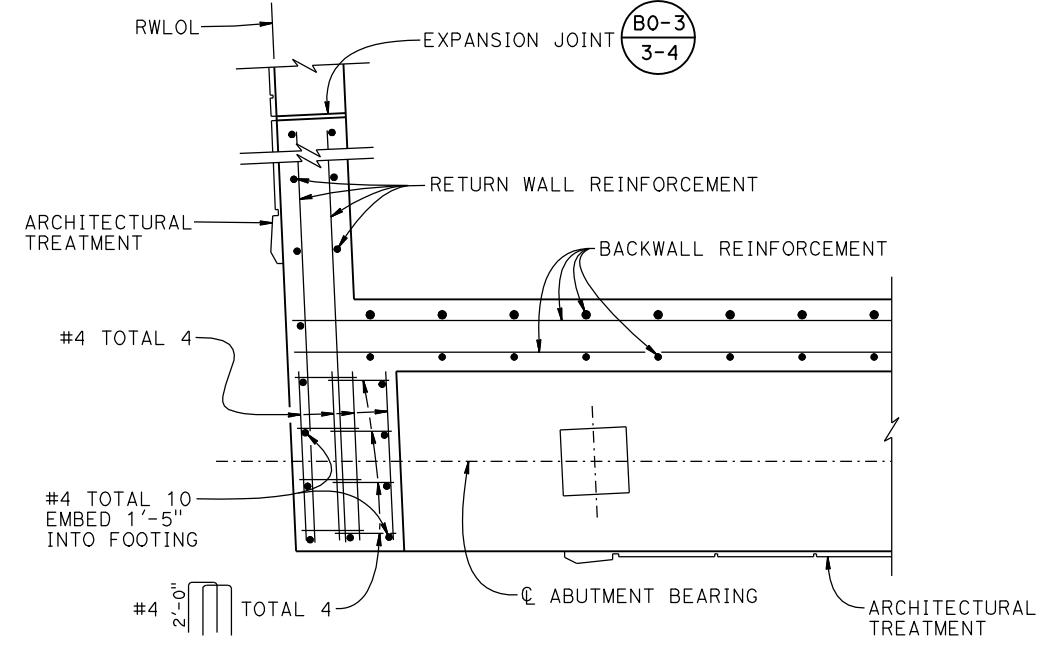


EXTERNAL SHEAR KEY



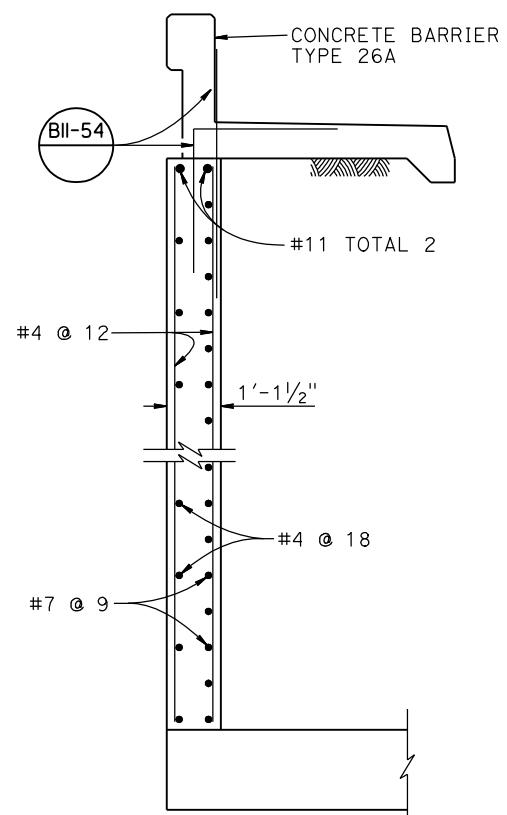
RETURN WALL ELEVATION

3/8"=1'-0"



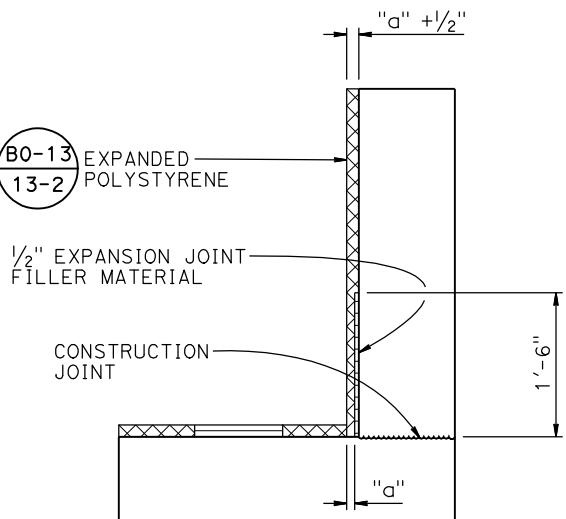
SECTION B-B

3/4"=1'-0"



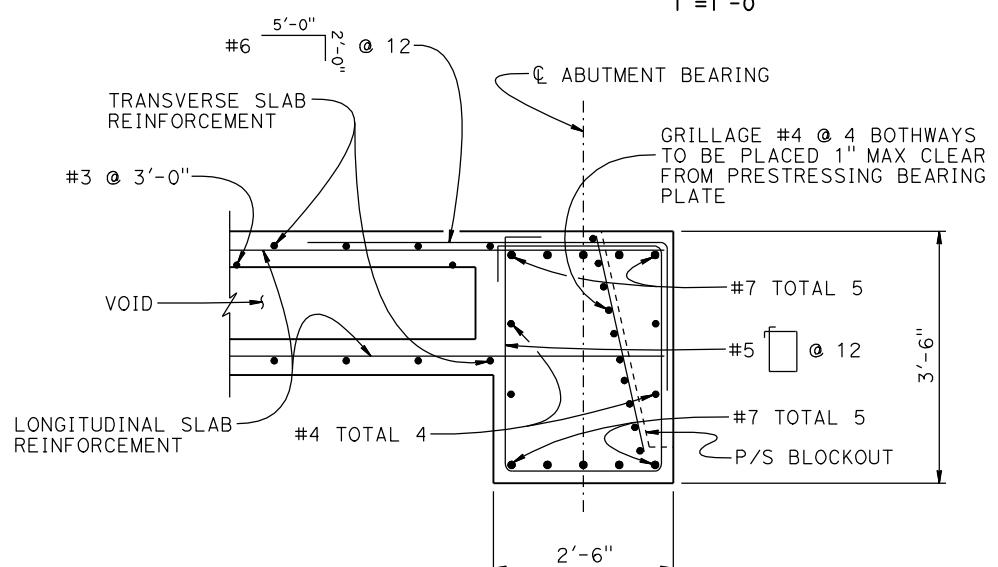
SECTION C-C

1/2"=1'-0"



DETAIL C

1"=1'-0"



END DIAPHRAGM

3/4"=1'-0"

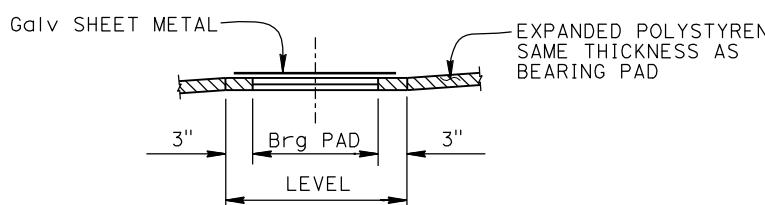
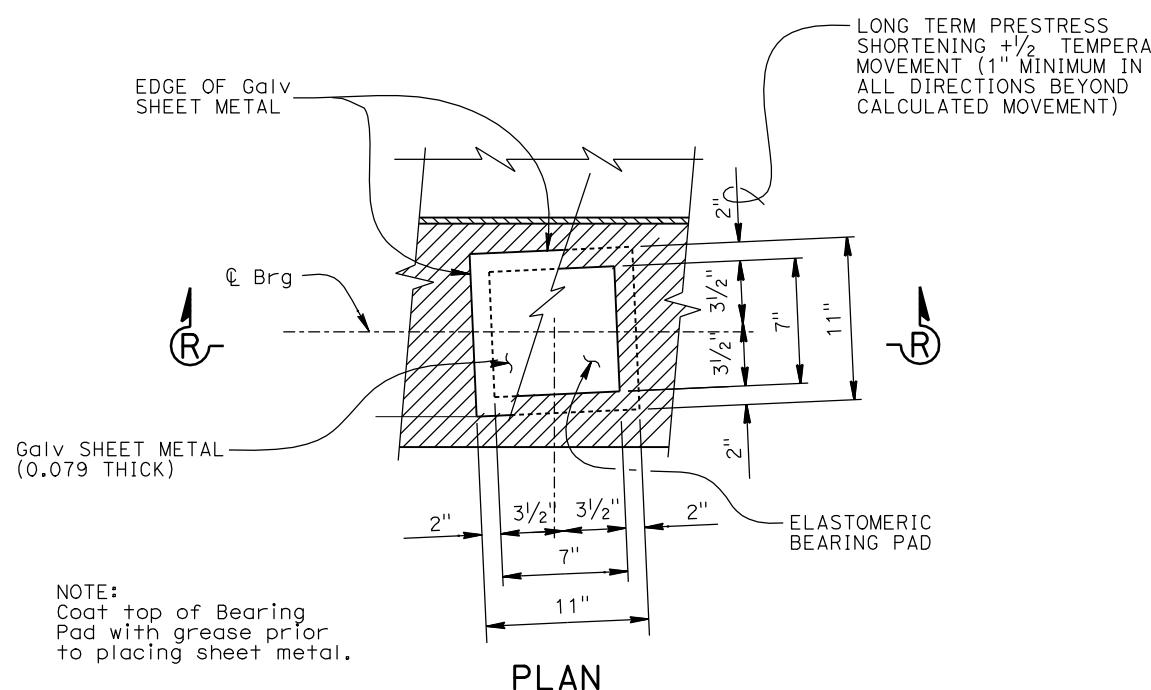
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DETAILS	BY	D. Pato	CHECKED	D. Alvarez		DESIGN BRANCH 6	POST MILE		ABUTMENT DETAILS NO. 1	5-7-12	6
QUANTITIES	BY	D. Alvarez	CHECKED	H. Tuazon		UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	FILE => 42c0669-f-abutdet1.dgn				OF

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre				

Richard Melko 5-30-12
REGISTERED CIVIL ENGINEER DATE
RICHARD MELKO
No. C 61617
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE
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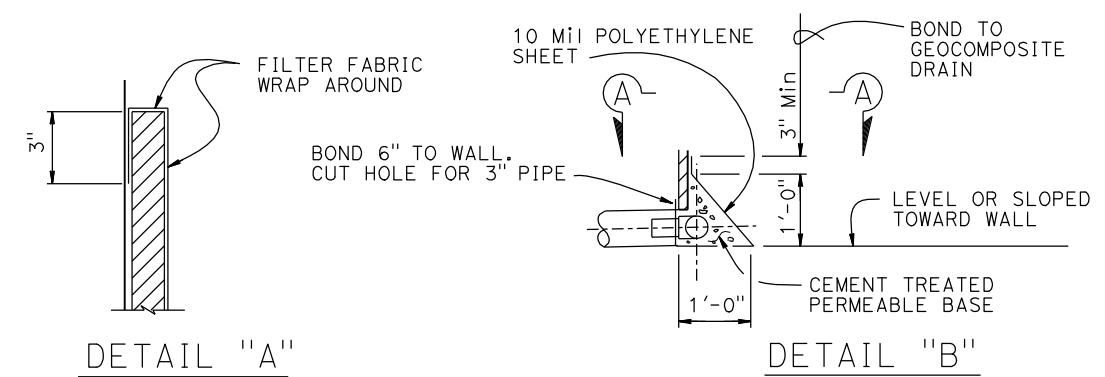
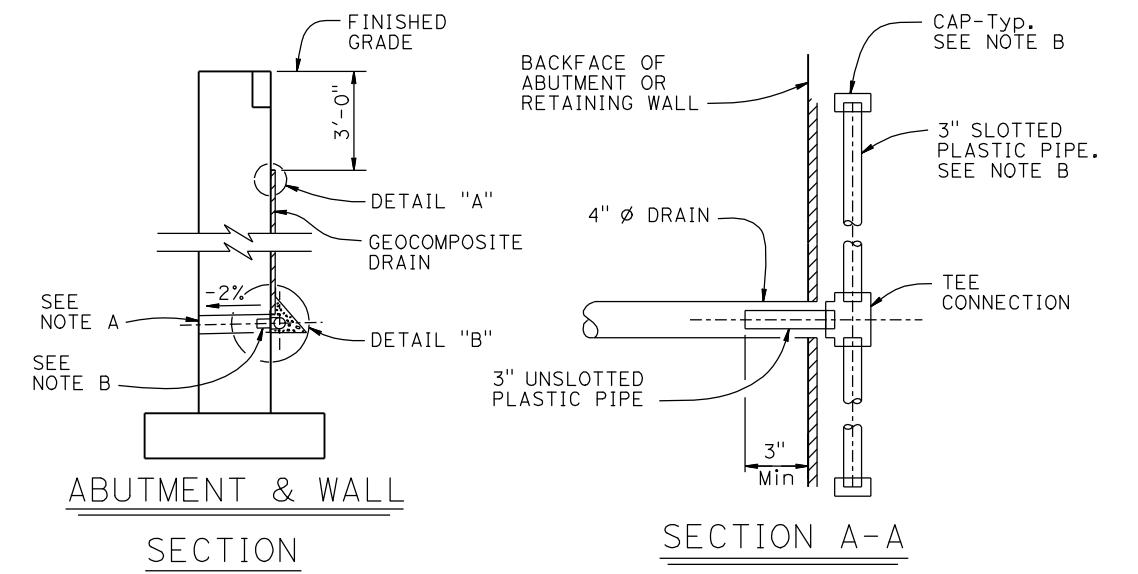
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BEARING PAD DETAIL

No Scale

Details typical at all bearing pads



WEEP HOLE AND GEOCOMPOSITE DRAIN

ALTERNATIVE TO BRIDGE DETAIL BO-3
3-1

Notes:

- 4" φ Drains through wall at abutment. Exposed wall and abutment drains shall be located 3'± above finished grade.
- Geocomposite drain, cement treated permeable base, and 3" φ slotted plastic pipe continuous behind retaining wall or abutment. Cap ends of pipe. Provide "Tee" connection at each 4" φ drain.
- Connect the low end of plastic pipe to the main outlet pipe as applicable.

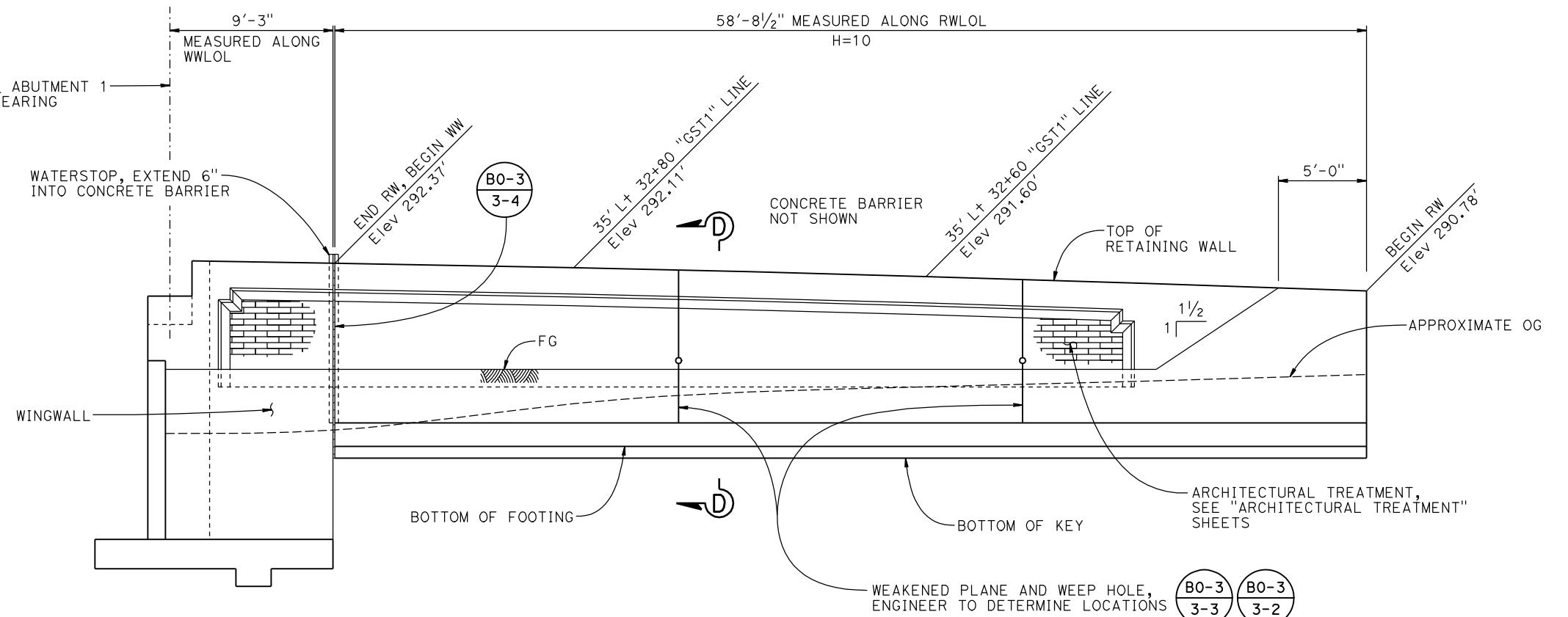
DESIGN	BY D. Alvarez	CHECKED H. Tuazon	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0669	POST MILE	G STREET OVERCROSSING ABUTMENT DETAILS NO. 2	REVISION DATES 5-8-12 5-29-12	SHEET OF 7 35
DETAILS	BY D. Pato	CHECKED D. Alvarez							
QUANTITIES	BY D. Alvarez	CHECKED H. Tuazon							
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)									
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3									
UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1									
CHSTP CONTRACT NO.									
DISREGARD PRINTS BEARING EARLIER REVISION DATES									

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre				

Roland Melko 5-30-12
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RICHARD MELKO
No. C 61617
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

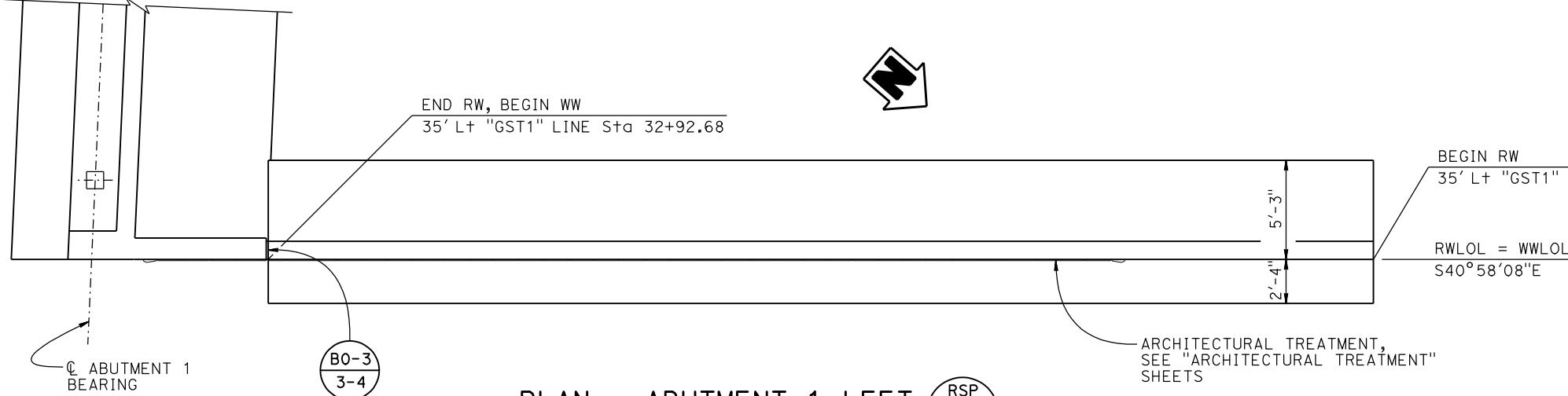
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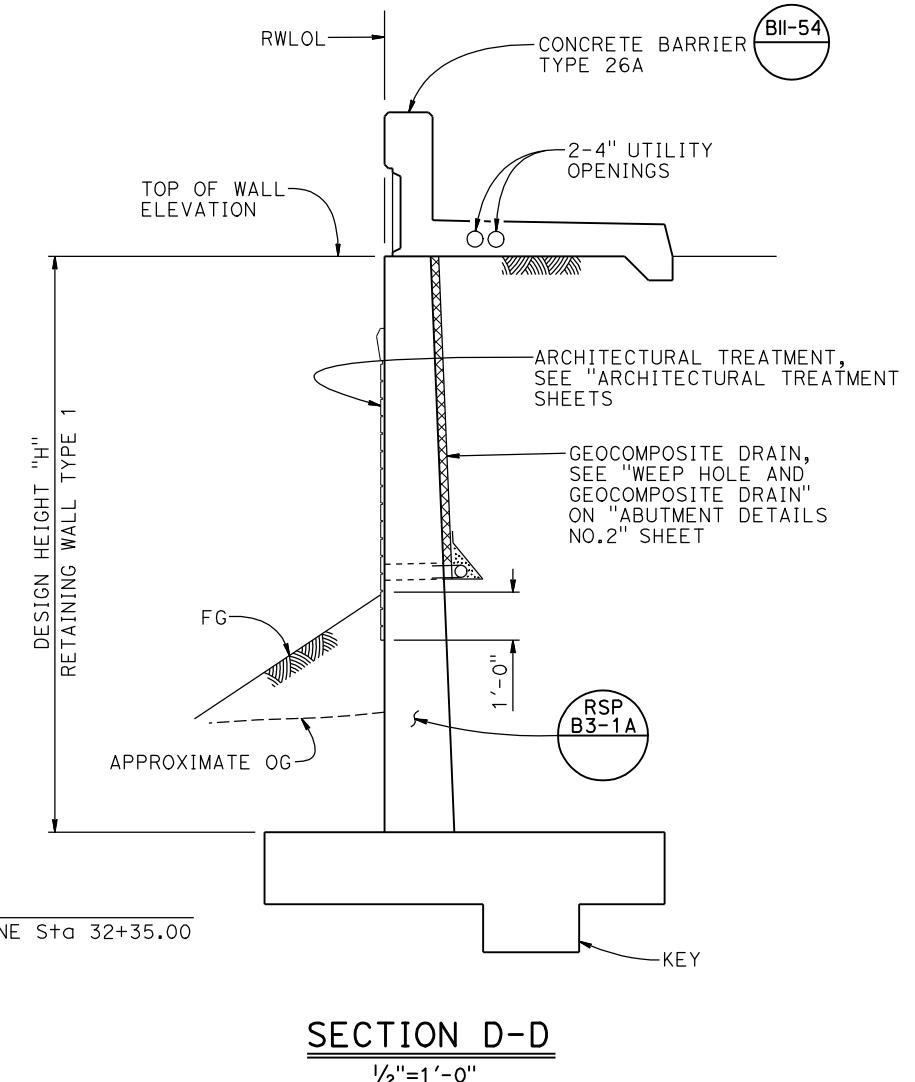
ELEVATION - ABUTMENT 1 LEFT RSP B3-1A B0-3

1/4"=1'-0"



PLAN - ABUTMENT 1 LEFT RSP B3-1A

1/4"=1'-0"



NOTE:
Retaining Wall Abutment 1 Left shown,
other retaining walls similar.

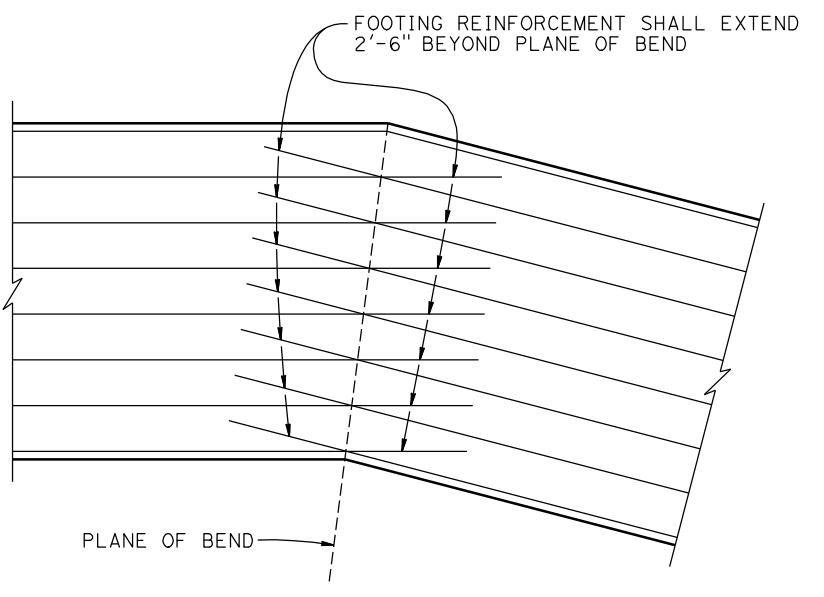
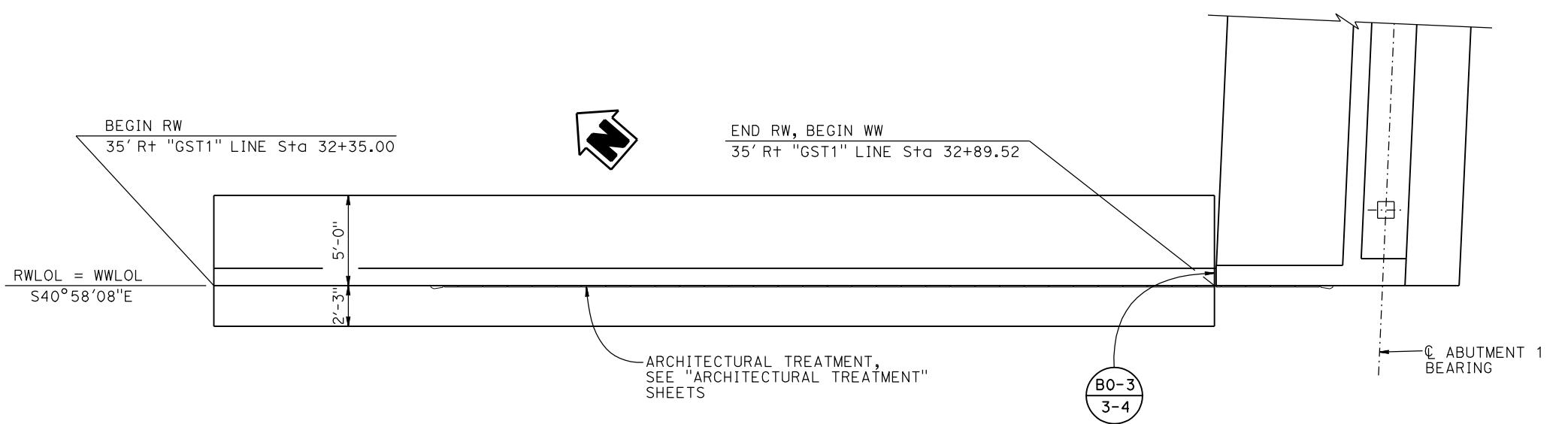
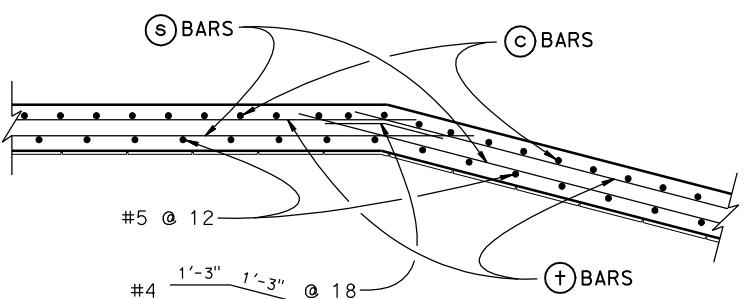
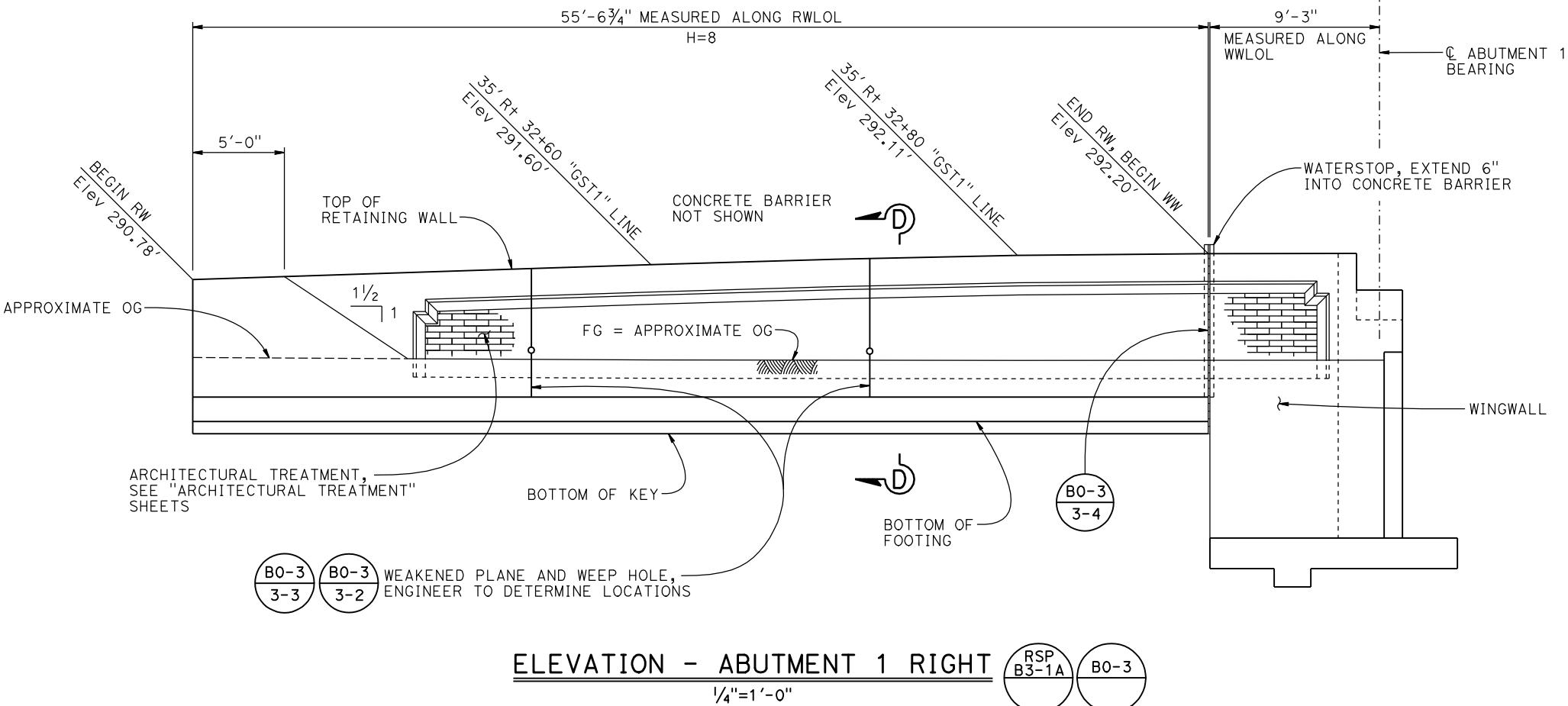
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	DETAILS BY	D. Pato	CHECKED BY	D. Alvarez		POST MILE						
	QUANTITIES BY	D. Alvarez	CHECKED BY	H. Tuazon		UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES 5-8-12 5-25-12		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3												
FILE => 42c0669-g-rwdet01-11.dgn												

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre				

Richard Melko 5-30-12
 REGISTERED CIVIL ENGINEER DATE
 RICHARD MELKO
 No. C 61617
 Exp. 6-30-13
 CIVIL
 STATE OF CALIFORNIA

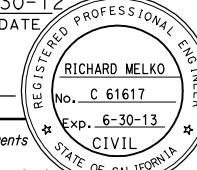
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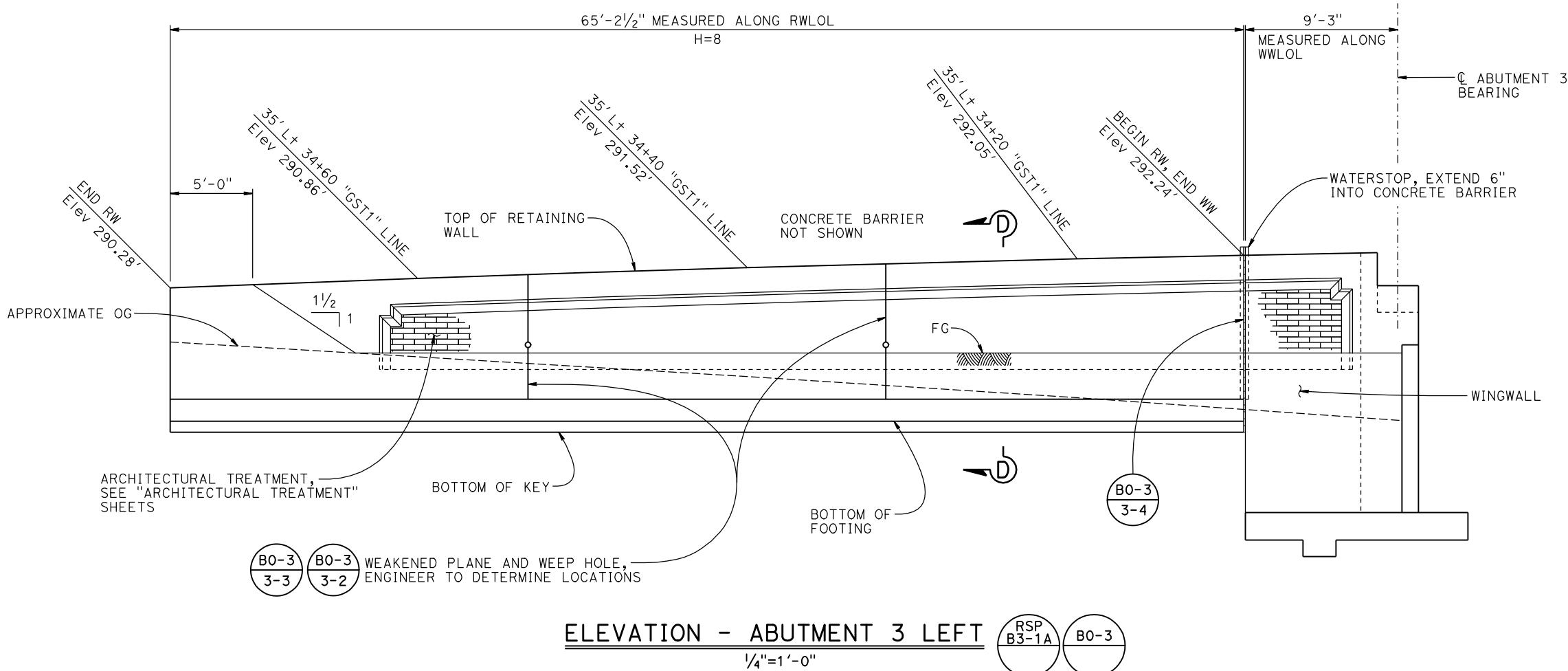

CALIFORNIA
 HIGH-SPEED RAIL AUTHORITY



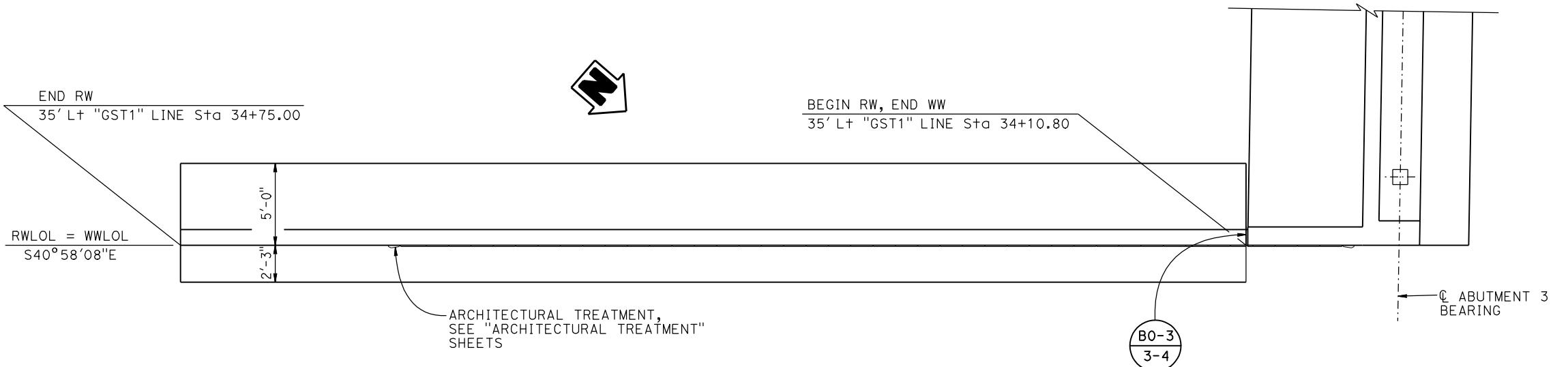
DETAIL D
 $\frac{1}{2}''=1'-0''$

DESIGN BY D. Alvarez	CHECKED H. Tuazon	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0669	G STREET OVERCROSSING
DETAILS BY D. Pato	CHECKED D. Alvarez			POST MILE	RETAINING WALL LAYOUT NO.2
QUANTITIES BY D. Alvarez	CHECKED H. Tuazon			UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 5-10-12 5-25-12
FILE => 42c0669-g-rwdet02-1r.dgn					SHEET OF 9 35

POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
Fre		
<p><i>Richard Melko</i> 5-30-12</p> <p>REGISTERED CIVIL ENGINEER DATE</p> <p>LANS APPROVAL DATE</p> <p>State of California or its officers or agents I will not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</p>   <p>CALIFORNIA HIGH-SPEED RAIL AUTHORITY</p>		



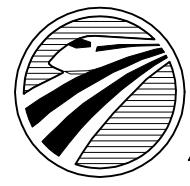
NOTE:
For "SECTION D-D", see "RETAINING
WALL LAYOUT NO.1" sheet.



PLAN - ABUTMENT 3 LEFT

$\frac{1}{4}'' = 1'-0''$

			DESIGN BY D. Alvarez	CHECKED H. Tuazon	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0669	G STREET OVERCROSSING	
DETAILS BY D. Pato			CHECKED D. Alvarez	POST MILE			RETAINING WALL LAYOUT NO.3		
QUANTITIES BY D. Alvarez			CHECKED H. Tuazon						
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET OF
						5-11-12	5-26-12	10	35

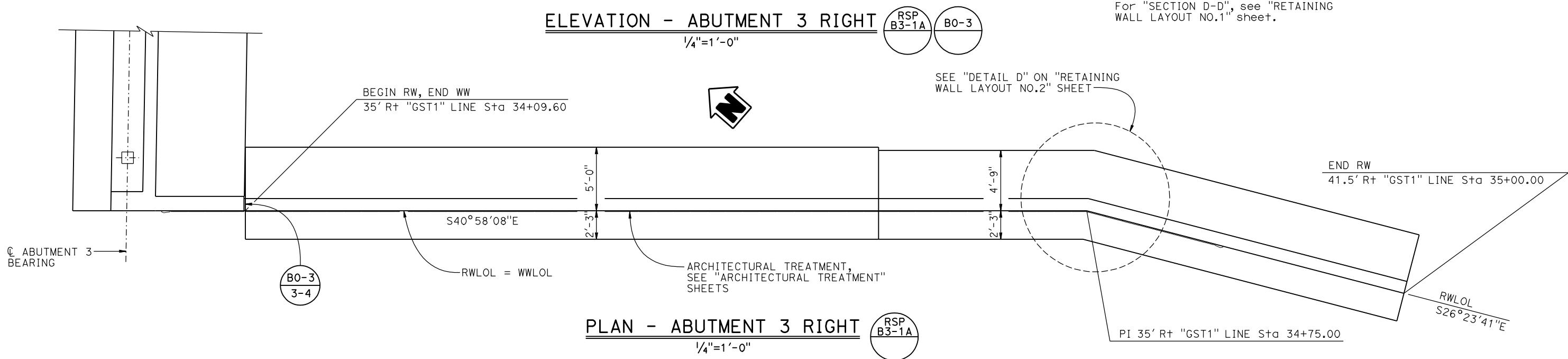
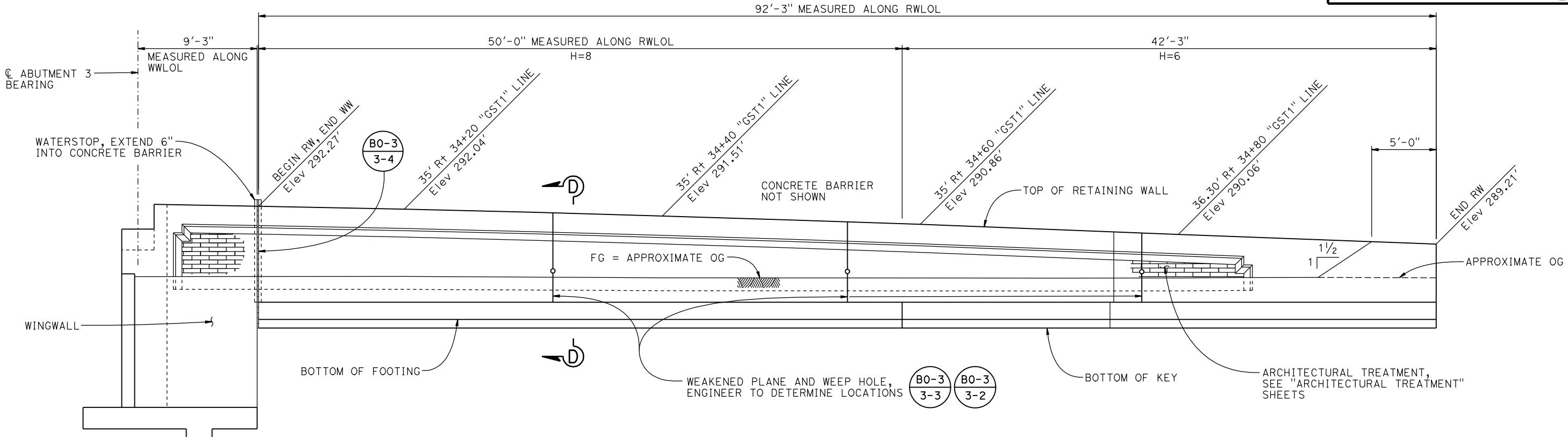
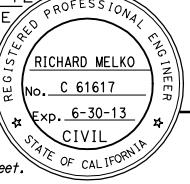


CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre				

Roland Melko 5-30-12
REGISTERED CIVIL ENGINEER DATE
RICHARD MELKO
No. C 61617
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE
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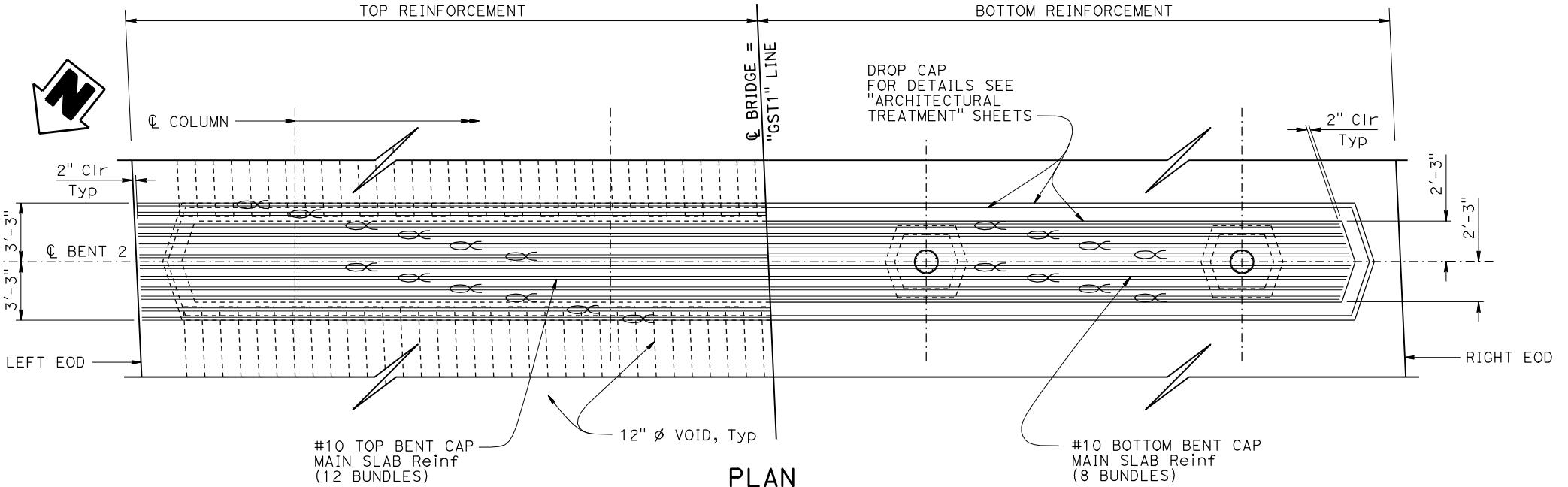


DESIGN	BY D. Alvarez	CHECKED H. Tuazon	STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 42C0669	POST MILE	G STREET OVERCROSSING RETRAINING WALL LAYOUT NO.4
DETAILS	BY D. Pato	CHECKED D. Alvarez					
QUANTITIES	BY D. Alvarez	CHECKED H. Tuazon					
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)							
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3							
UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1							
CHSTP CONTRACT NO.							
DISREGARD PRINTS BEARING EARLIER REVISION DATES							
5-12-12 5-26-12 11 35							

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre				

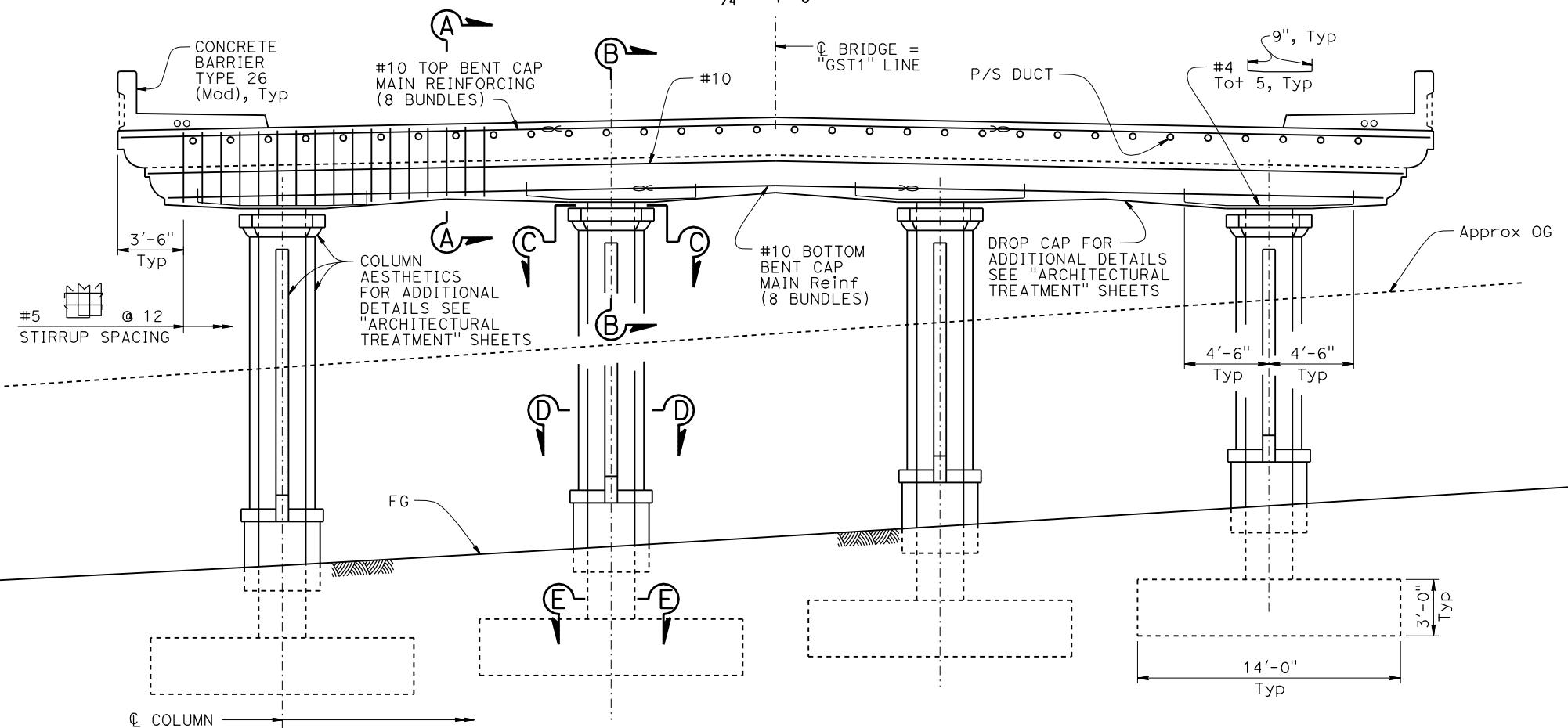
Richard Melko
REGISTERED CIVIL ENGINEER 05-30-12
RICHARD MELKO No. C 61617
Exp. 06/30/13
REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA
CIVIL
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PLANS APPROVAL DATE
CALIFORNIA HIGH-SPEED RAIL AUTHORITY



PLAN
 $\frac{1}{4}'' = 1'-0''$

NOTE: Reinf symmetrical about C Bridge



BENT ELEVATION

$\frac{1}{4}'' = 1'-0''$

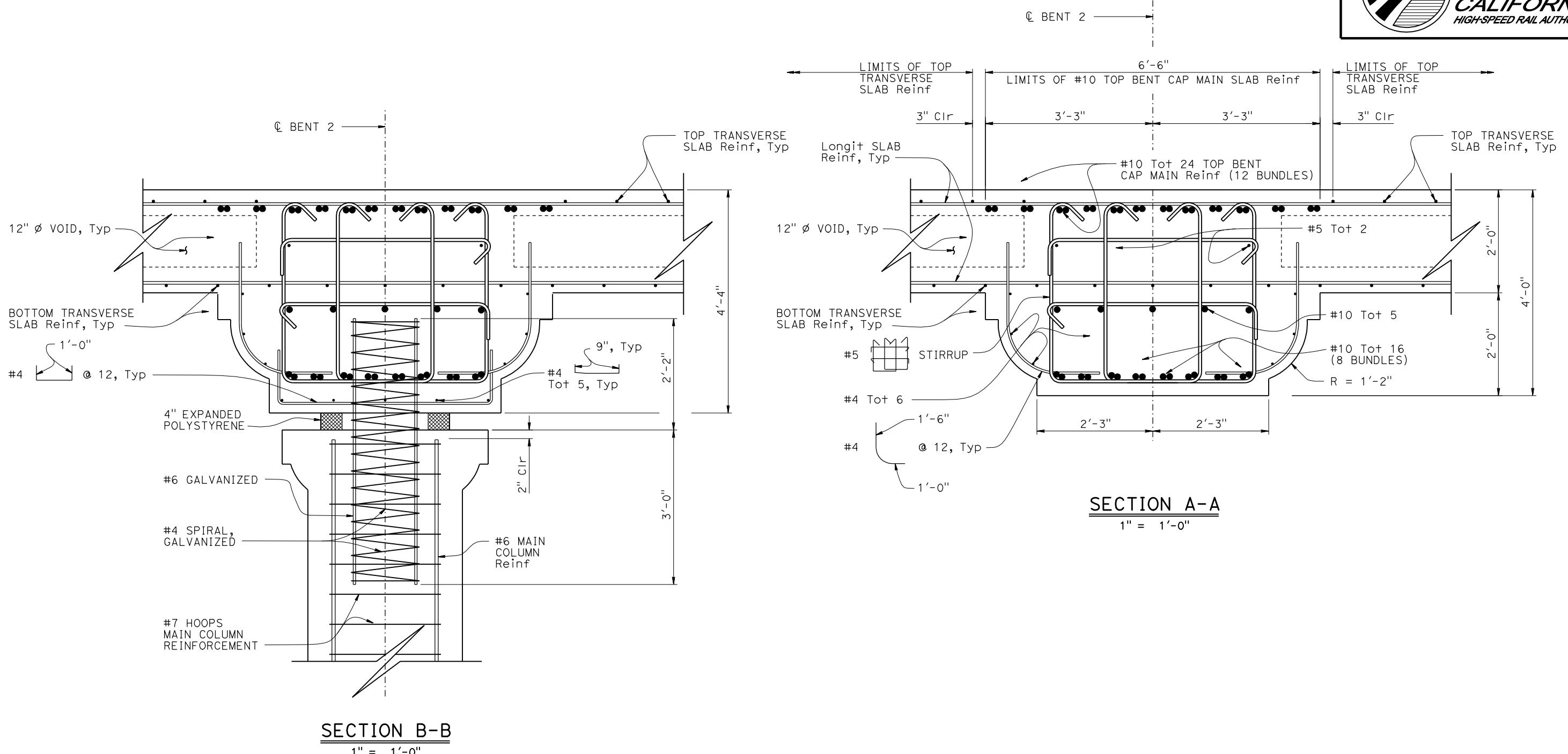
DESIGN BY DAVID ALVAREZ	CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0669	G STREET OVERCROSSING
DETAILS BY SUSAN NG	CHECKED DON NGUYEN-TAN			POST MILE	BENT LAYOUT
QUANTITIES BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON			UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 05-05-12 05-06-12 05-25-12 05-30-12 SHEET OF 12 35

NOTES: 1. See "ARCHITECTURAL TREATMENT" sheets for additional details.
 2. No splices allowed in main column Reinf.
 3. All hoops shall be "Ultimate" butt spliced continuous.
 4. Bent cap main reinforcing may be "Service" spliced continuous.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre				

Richard Melko 05-30-12
 REGISTERED CIVIL ENGINEER
 RICHARD MELKO
 No. C 61617
 Exp. 06/30/13
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA
 PLANS APPROVAL DATE
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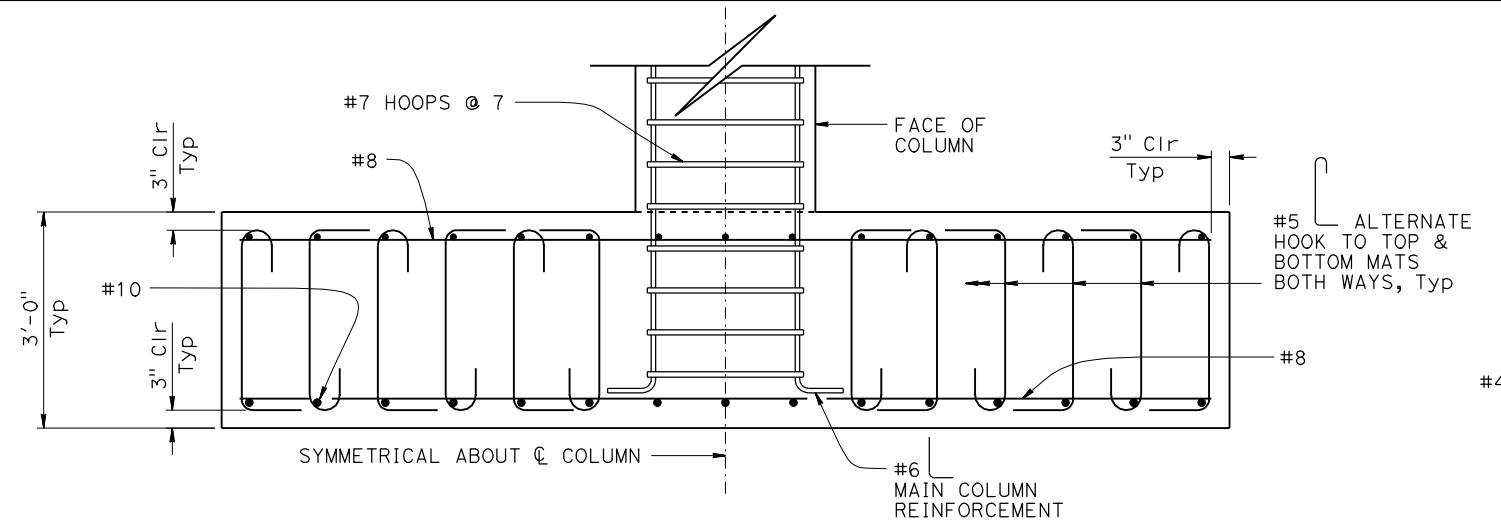
 CALIFORNIA
 HIGH-SPEED RAIL AUTHORITY



DESIGN			BY DAVID ALVAREZ	CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN		BRIDGE NO. 42C0669	G STREET OVERCROSSING	
DETAILS	BY SUSAN NG	CHECKED DON NGUYEN-TAN	DESIGN BRANCH 6			POST MILE	BENT DETAILS NO. 1			
QUANTITIES	BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON	UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.		DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 13	OF 35	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)										
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS										
0 1 2 3										
FILE => 42c0669-i-bt2-det-01.dgn										

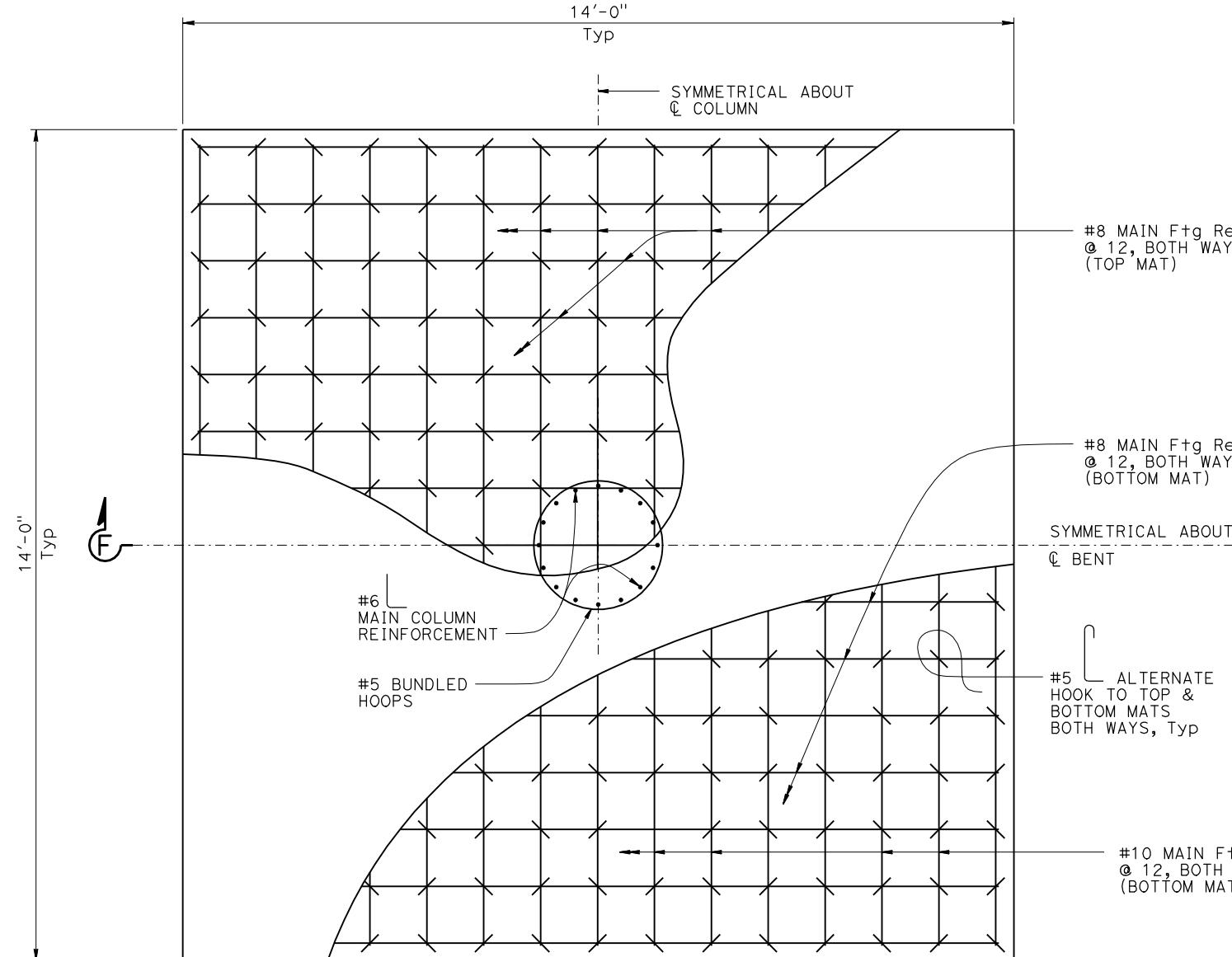
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre				

Richard Melko
REGISTERED CIVIL ENGINEER 05-30-12
RICHARD MELKO No. C 61617
Exp. 06/30/13
REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA
PLANS APPROVAL DATE The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



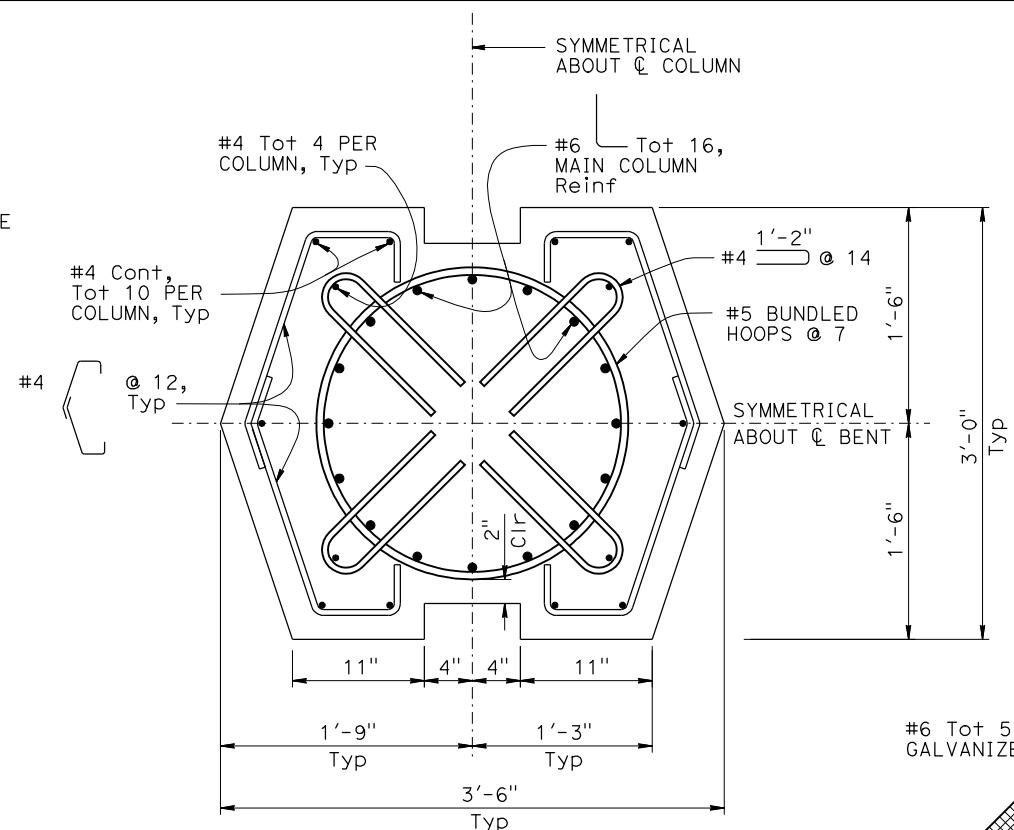
SECTION F-F

$\frac{3}{4}'' = 1'-0''$



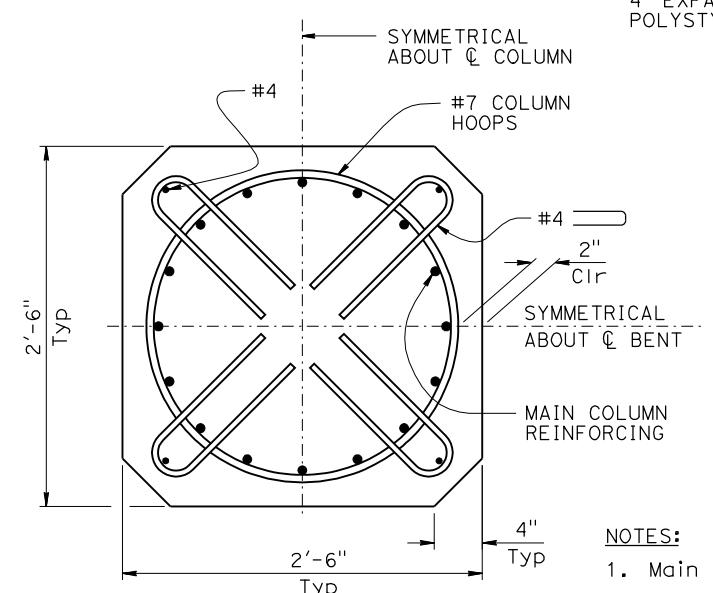
FOOTING PLAN

$\frac{3}{4}'' = 1'-0''$



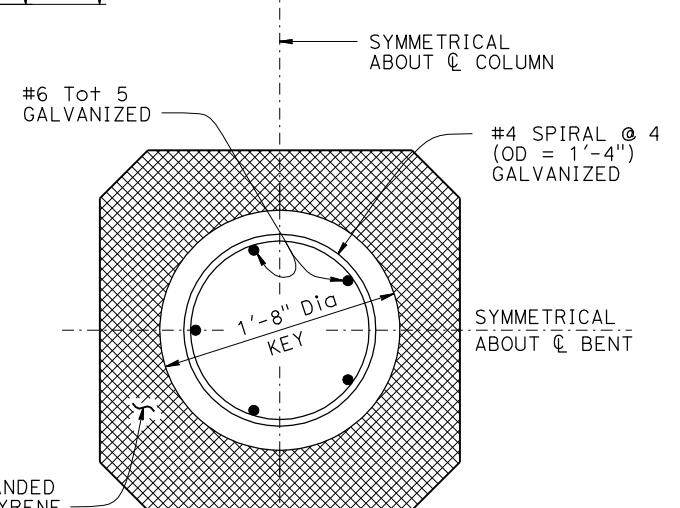
SECTION D-D

$1\frac{1}{2}'' = 1'-0''$



SECTION E-E

$1\frac{1}{2}'' = 1'-0''$



SECTION C-C

$1\frac{1}{2}'' = 1'-0''$

NOTES:

1. Main footing reinforcement shall not be spliced.
2. No splices allowed in main column reinforcement.
3. All hoops shall be "Ultimate" butt spliced continuous.
4. See "ARCHITECTURAL TREATMENT" sheets for additional details.

DESIGN BY DAVID ALVAREZ	CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0669
DETAILS BY SUSAN NG	CHECKED DON NGUYEN-TAN			POST MILE
QUANTITIES BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON			UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1

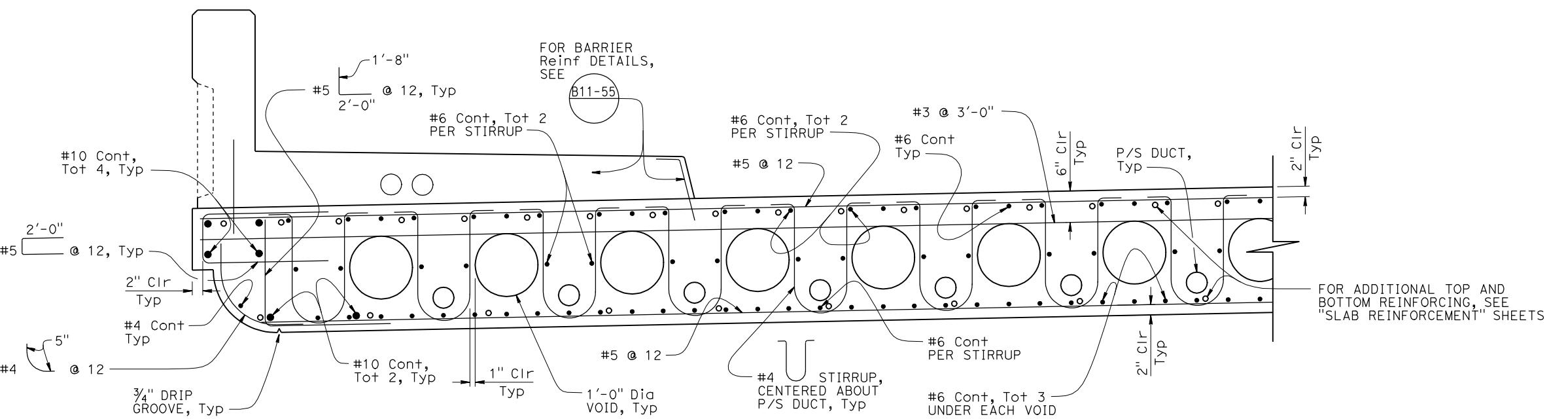
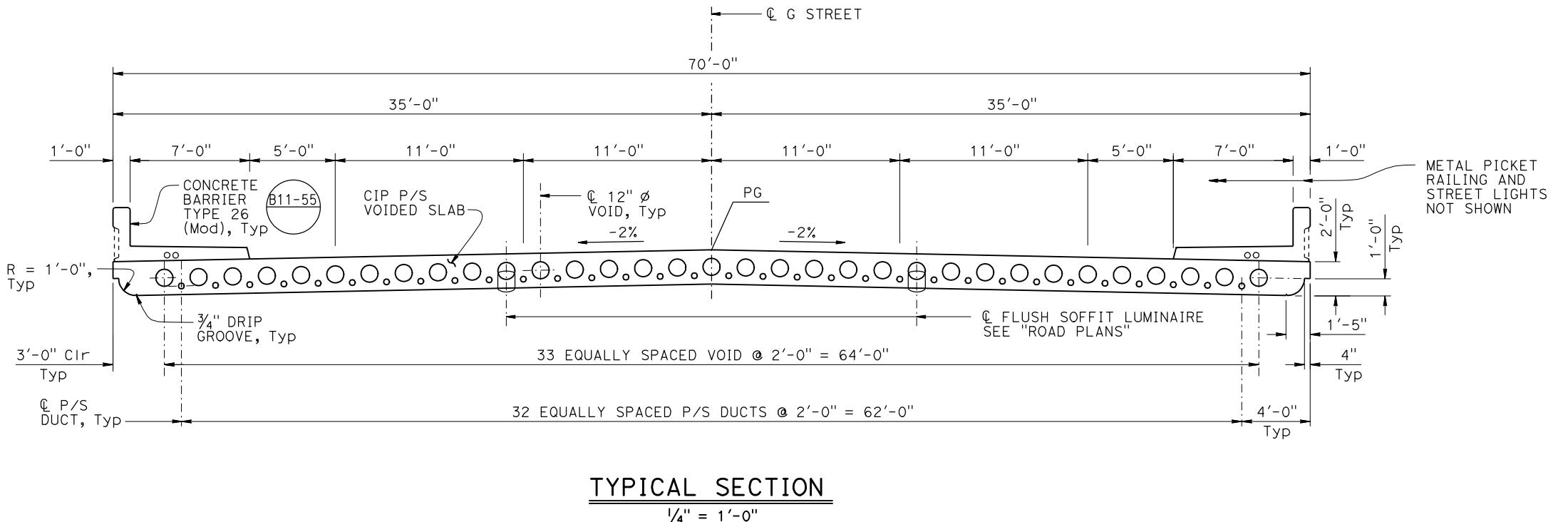
G STREET OVERPASS	CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET OF
BENT DETAILS NO. 2			05-04-12 05-28-12 05-29-12	14 35

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre				

Richard Melko
REGISTERED CIVIL ENGINEER 05-30-12
RICHARD MELKO No. C 61617
REGISTERED PROFESSIONAL ENGINEER
CIVIL EXP. 06/30/13
STATE OF CALIFORNIA

PLANS APPROVAL DATE
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 CALIFORNIA HIGH-SPEED RAIL AUTHORITY



PART TYPICAL SECTION

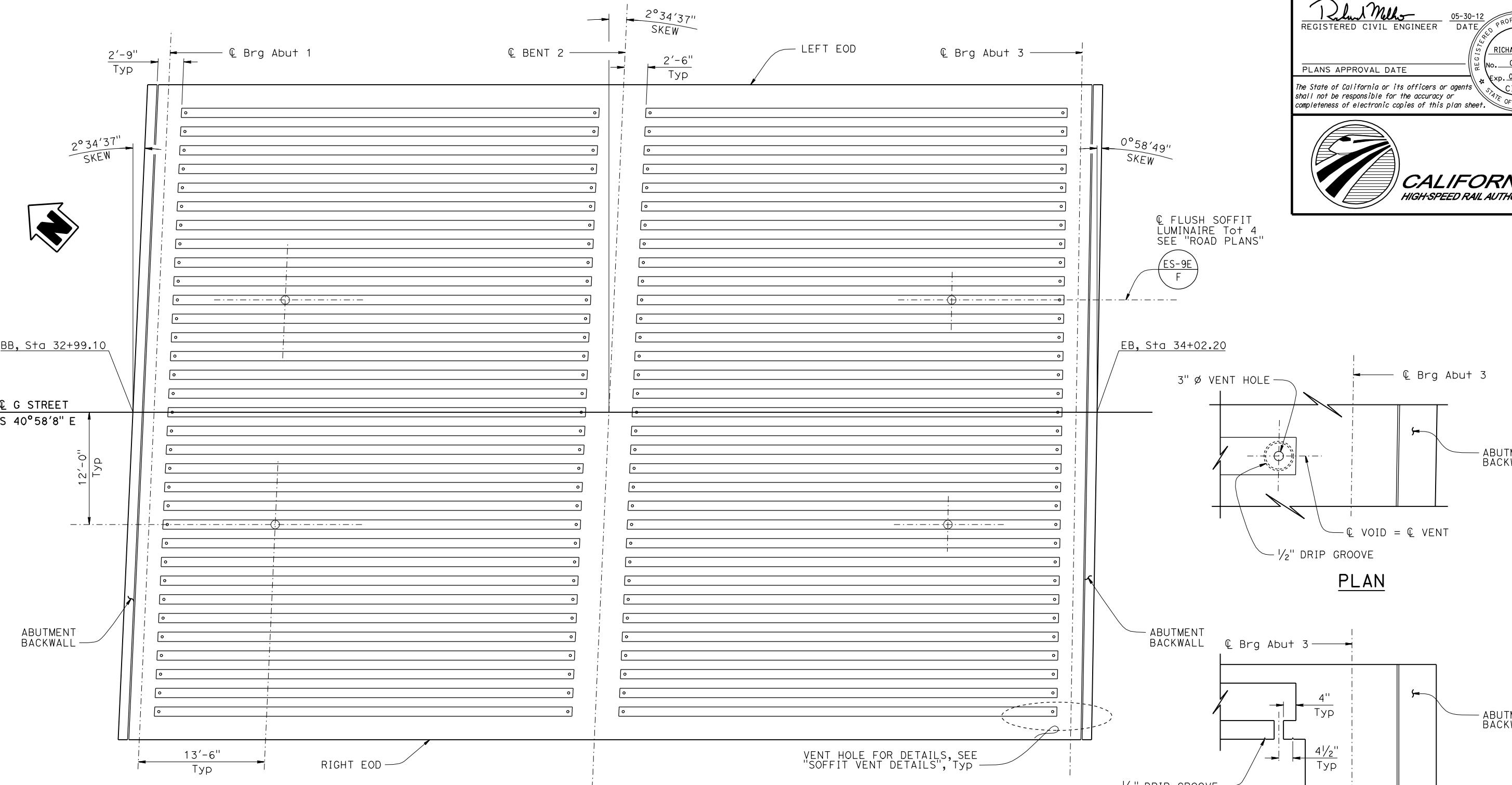
1" = 1'-0"

DESIGN BY DAVID ALVAREZ	CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0669	G STREET OVERCROSSING	
DETAILS BY SUSAN NG	CHECKED DON NGUYEN-TAN			POST MILE	TYPICAL SECTION	
QUANTITIES BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON			UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	FILE => 42c0669-k-ts.dgn	REVISION DATES 04-26-12 04-30-12 05-27-12	SHEET OF 15 35	USERNAME => s120745 DATE PLOTTED => 30-MAY-2012 TIME PLOTTED => 16:34

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre				

Richard Melko
REGISTERED CIVIL ENGINEER 05-30-12
RICHARD MELKO No. C 61617
Exp. 06/30/13
REGISTERED PROFESSIONAL ENGINEER
CIVIL STATE OF CALIFORNIA

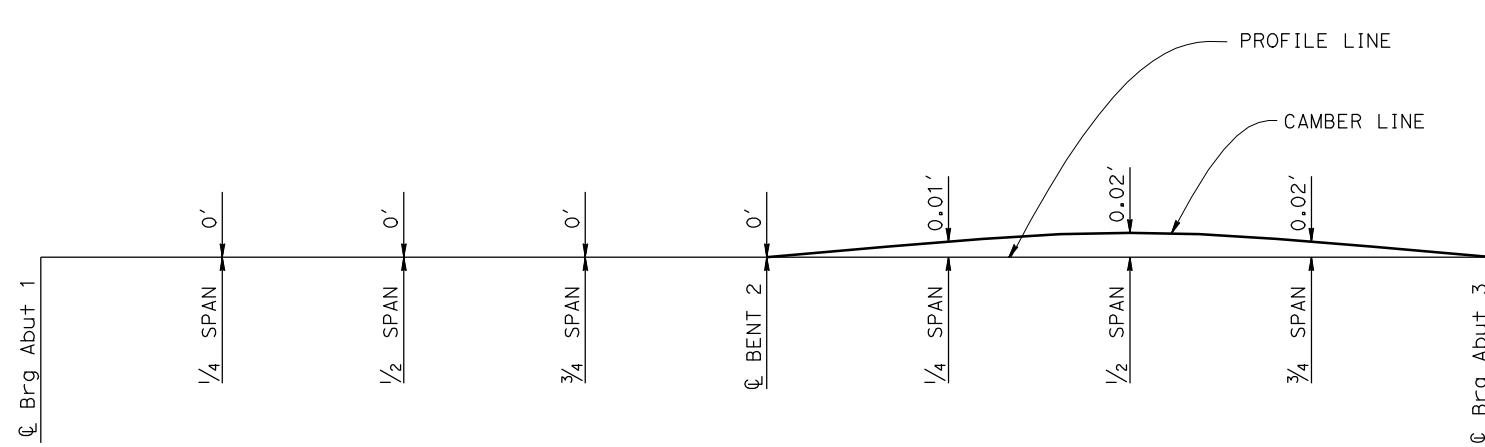
PLANS APPROVAL DATE
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VOID LAYOUT

$\frac{3}{16}$ " = 1'-0"

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN BY	DAVID ALVAREZ	CHECKED BY	HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO.	42C0669	POST MILE	G STREET OVERCROSSING SLAB DETAILS					
	DETAILS BY	SUSAN NG	CHECKED BY	DON NGUYEN-TAN			UNIT: 3591 CONTRACT NO.: 06-2HT201			CHSTP CONTRACT NO.					
	QUANTITIES BY	DON NGUYEN-TAN	CHECKED BY	HILARIO TUAZON			PROJECT NO. & PHASE: 0612000239-1			DISREGARD PRINTS BEARING EARLIER REVISION DATES					
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS										REVISION DATES	SHEET OF				
0 1 2 3										04-27-12 05-11-10 05-25-12 05-27-12	16 35				



DOES NOT INCLUDE ALLOWANCE FOR FALSEWORK SETTLEMENT

CAMBER DIAGRAM

NO SCALE

PRESTRESSING NOTES

270 KSI Low Relaxation Strand:

P_{jack} = 7500 kips

Anchor Set = 0.37 in

Total Number of Ducts = 32

Distribution of prestress force (P_{jack}) between Ducts shall not exceed the ratio of 3:2.

Concrete: f'_c = 5000 psi @ 28 days

f'_{ci} = 3500 psi @ time of stressing

Contractor shall submit elongation calculations based on initial stress at

$\alpha = 0.9342$ times jacking stress.

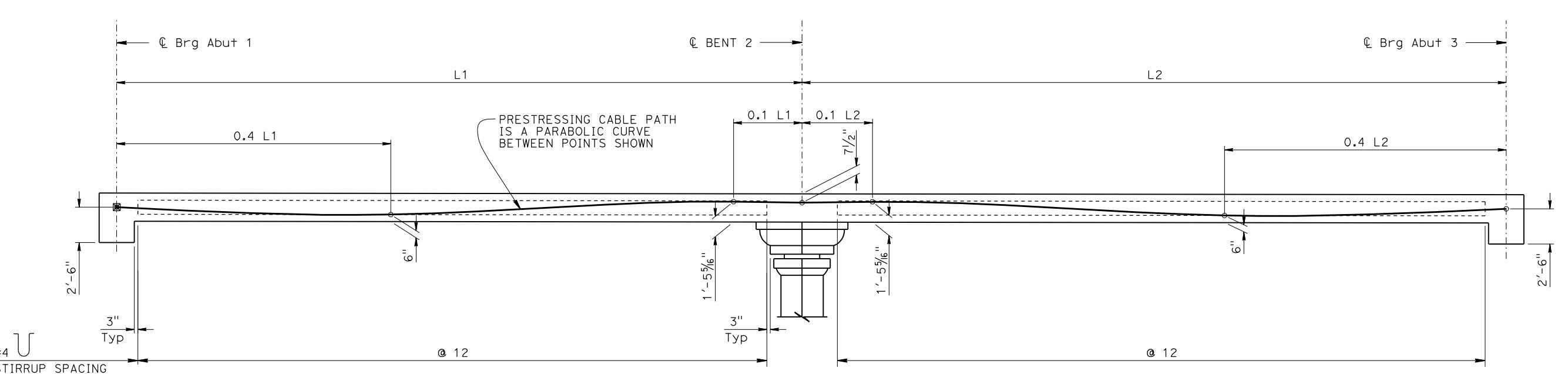
One end stressing shall be performed from Abutment 3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO. TOTAL SHEETS
06	Fre			

Richard Melko
REGISTERED CIVIL ENGINEER 05-30-12
RICHARD MELKO No. C 61617
EXPIRED 06/30/13
REGISTERED PROFESSIONAL ENGINEER
CIVIL STATE OF CALIFORNIA

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 CALIFORNIA HIGH-SPEED RAIL AUTHORITY



Note:

- Indicates theoretical point of no movement for one end stressing

LONGITUDINAL SECTION

1/4" = 1'-0"

DESIGN BY DAVID ALVAREZ	CHECKED HILARIO TUAZON
DETAILS BY SUSAN NG	CHECKED DON NGUYEN-TAN
QUANTITIES BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)
--

ORIGINAL SCALE IN INCHES
FOR REDUCED PLANS

STATE OF
CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 6

BRIDGE NO.
42C0669

POST MILE

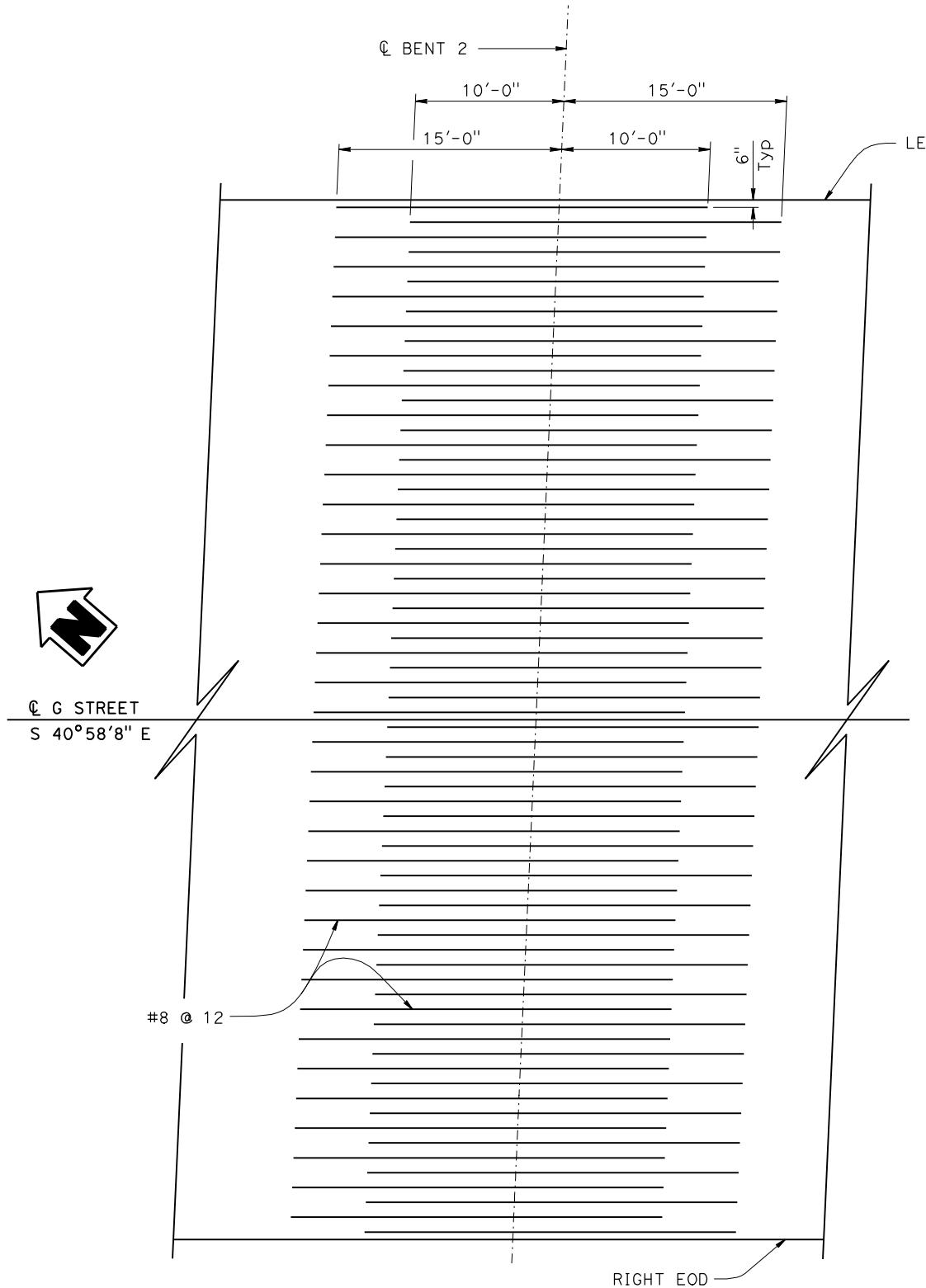
UNIT: 3591 CONTRACT NO.: 06-2HT201
PROJECT NO. & PHASE: 0612000239-1

CHSTP CONTRACT NO.

DISREGARD PRINTS BEARING
EARLIER REVISION DATES

REVISION DATES
04-27-12 05-11-12 05-25-12 05-30-12
SHEET OF
17 35

G STREET OVERCROSSING LONGITUDINAL SECTION



NOTE:

No splices are allowed in additional top slab reinforcing

ADDITIONAL TOP SLAB REINFORCEMENT

$$\frac{3}{16}'' = 1'-0''$$

DESIGN	BY DAVID ALVAREZ	CHECKED HILARIO TUAZO
DETAILS	BY SUSAN NG	CHECKED DON NGUYEN-T
QUANTITIES	BY DON NGUYEN-TAN	CHECKED HILARIO TUAZO



**VISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 6**

G STREET OVERCROSSING TOP SLAB REINFORCEMENT

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES
FOR REDUCED PLANS

T

1

1

1

1

1

UNI

3591 CONTRACT NO.: 06-2HT201
CT NO. & PHASE: 0612000239-1

CHSTP CONTRACT NO.

**DISREGARD PRINTS BEARING
EARLIER REVISION DATES**

REVISION DATES	SHEET	OF

→ 04-27-12 18 35 USB

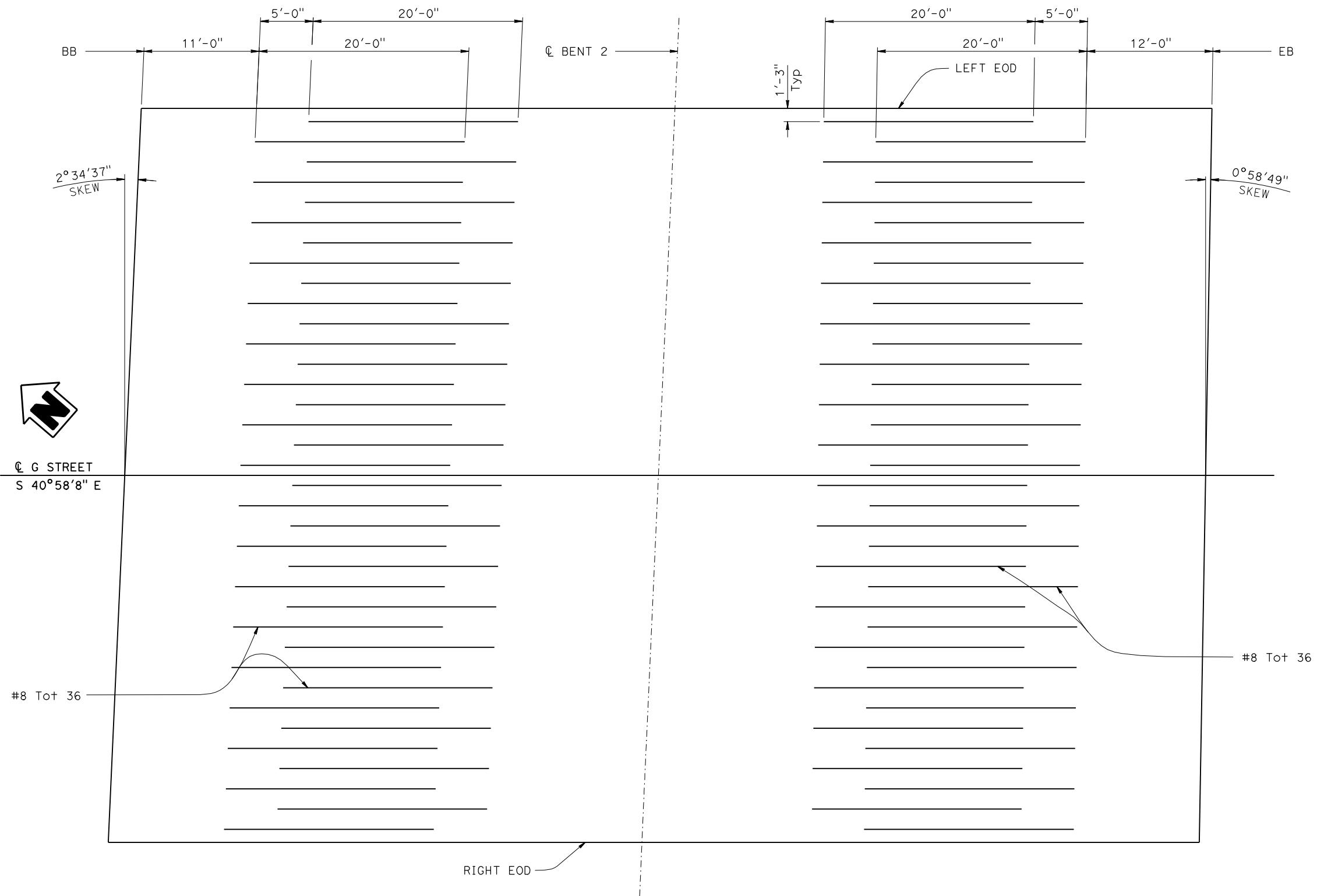
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre				

Richard Melko
REGISTERED CIVIL ENGINEER 05-30-12
RICHARD MELKO No. C 61617
REGISTERED PROFESSIONAL ENGINEER Exp. 06/30/13
CIVIL STATE OF CALIFORNIA

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CALIFORNIA
HIGH-SPEED RAIL AUTHORITY



ADDITIONAL BOTTOM SLAB REINFORCEMENT

$\frac{3}{16}$ " = 1'-0"

NOTE:
No splices are allowed in additional bottom slab reinforcing

DESIGN	BY DAVID ALVAREZ	CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0669	G STREET OVERCROSSING BOTTOM SLAB REINFORCEMENT
	BY SUSAN NG	CHECKED DON NGUYEN-TAN			POST MILE	
	BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON			UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	
DETAILS			CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES		
QUANTITIES			REVISION DATES	SHEET OF 19 35		

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

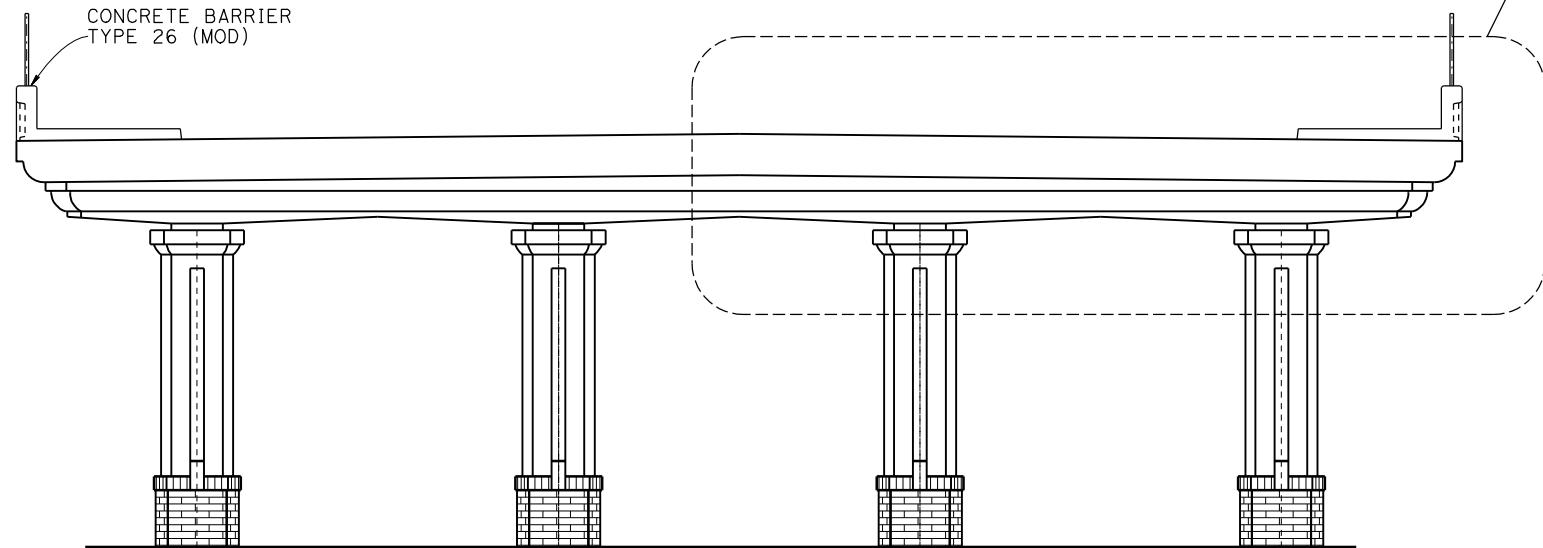
ORIGINAL SCALE IN INCHES
FOR REDUCED PLANS

0 1 2 3

FILE => 42c0669-o-btm-bar.dgn

DATE PLOTTED => 30-MAY-2012 TIME PLOTTED => 16:34

USERNAME => s120745



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre				

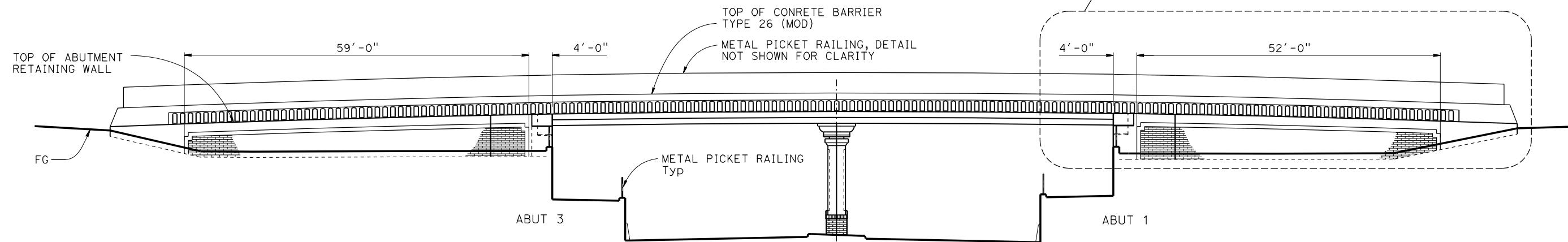
Richard Melko
REGISTERED CIVIL ENGINEER
05-30-12 DATE
RICHARD MELKO
No. C 61617
Exp. 06/30/13
REGISTERED PROFESSIONAL ENGINEER
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

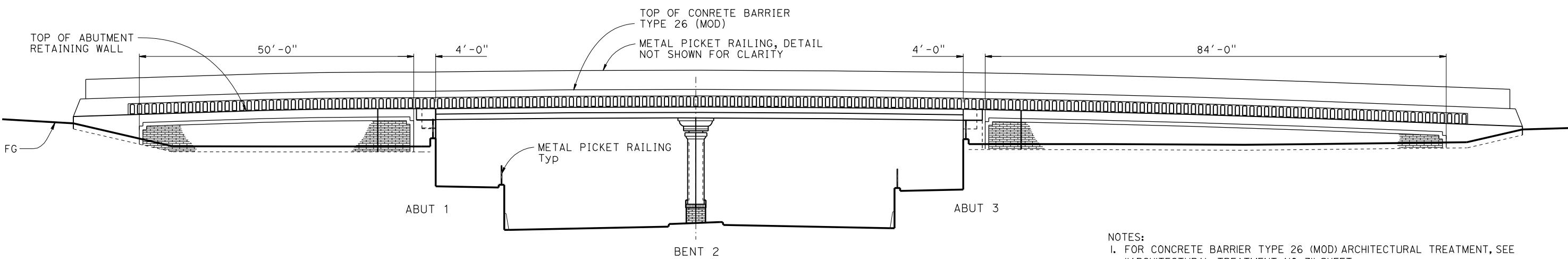
BENT 2 ELEVATION - ARCHITECTURAL TREATMENT

NO SCALE



G ST OVERCROSSING LEFT ELEVATION ARCHITECTURAL TREATMENT

NO SCALE



NOTES:

- FOR CONCRETE BARRIER TYPE 26 (MOD) ARCHITECTURAL TREATMENT, SEE "ARCHITECTURAL TREATMENT NO. 7" SHEET.
- FOR METAL PICKET RAILING, SEE "ARCHITECTURAL TREATMENT NO. 8" SHEET.

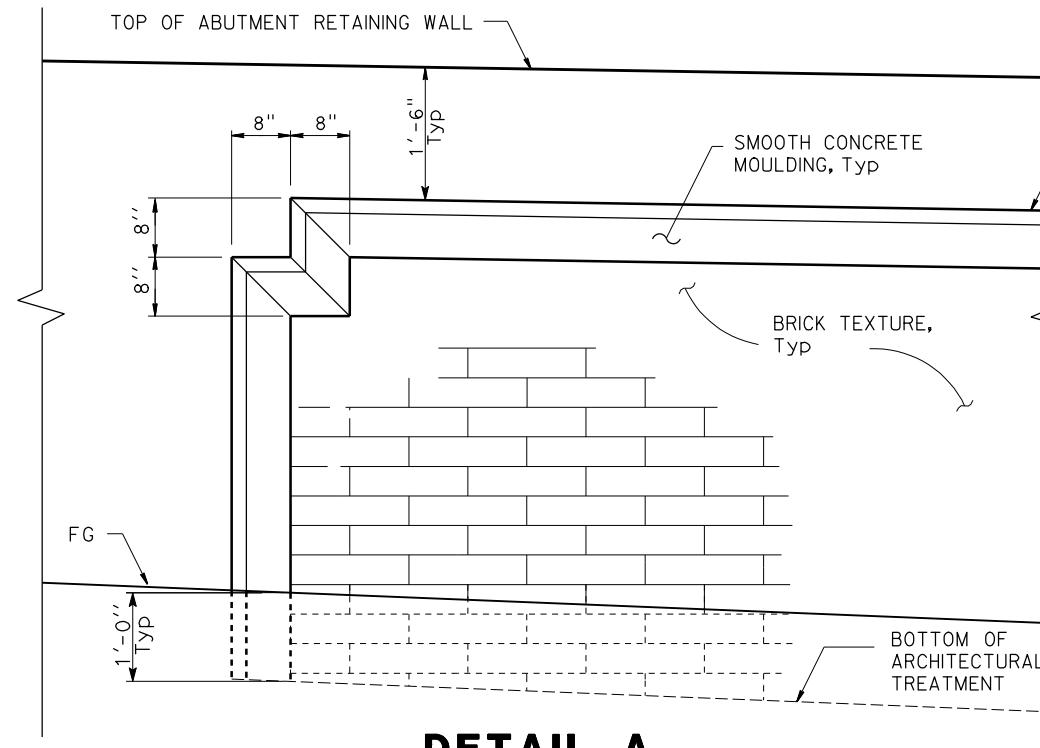
G ST OVERCROSSING RIGHT ELEVATION ARCHITECTURAL TREATMENT

NO SCALE

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY DAVID ALVAREZ	CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0669	G STREET OVERCROSSING	
	DETAILS	BY ISAAC TASABIA	CHECKED RICHARD MELKO			POST MILE	ARCHITECTURAL TREATMENT NO. 1	
	QUANTITIES	BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON			UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES
			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3			REVISION DATES	SHEET OF 20 35

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre				

Richard Melko
REGISTERED CIVIL ENGINEER 05-30-12
RICHARD MELKO No. C 61617 EXP. 06/30/13
REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA
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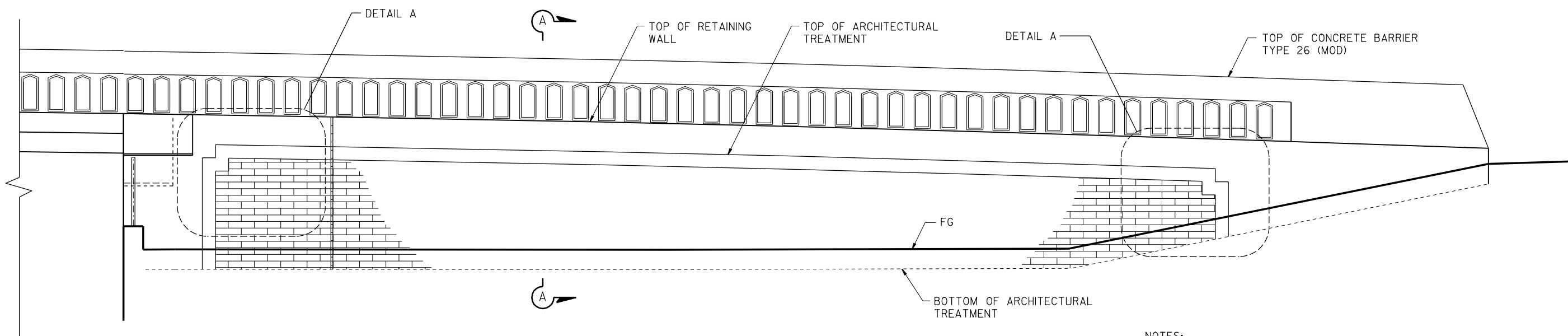
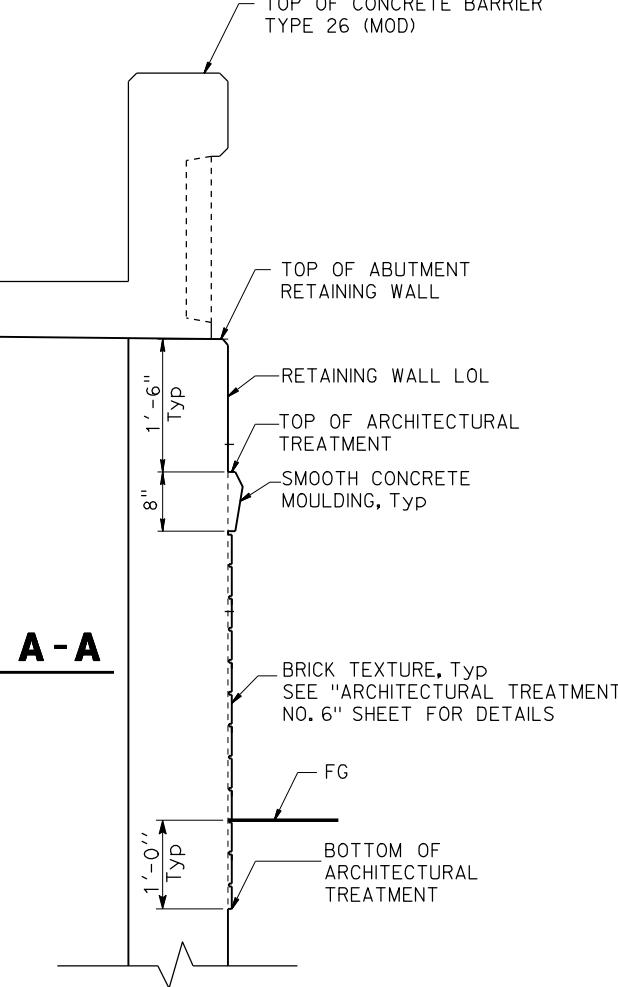
DETAIL A

NO SCALE

NOTE: RIGHT SIDE SHOWN, LEFT SIDE SIMILAR

SECTION A-A

NO SCALE



ABUTMENT RETAINING WALL ELEVATION

NO SCALE

NOTE: RETAINING WALL ABUTMENT I LEFT SHOWN, OTHER ABUTMENT RETAINING WALLS SIMILAR

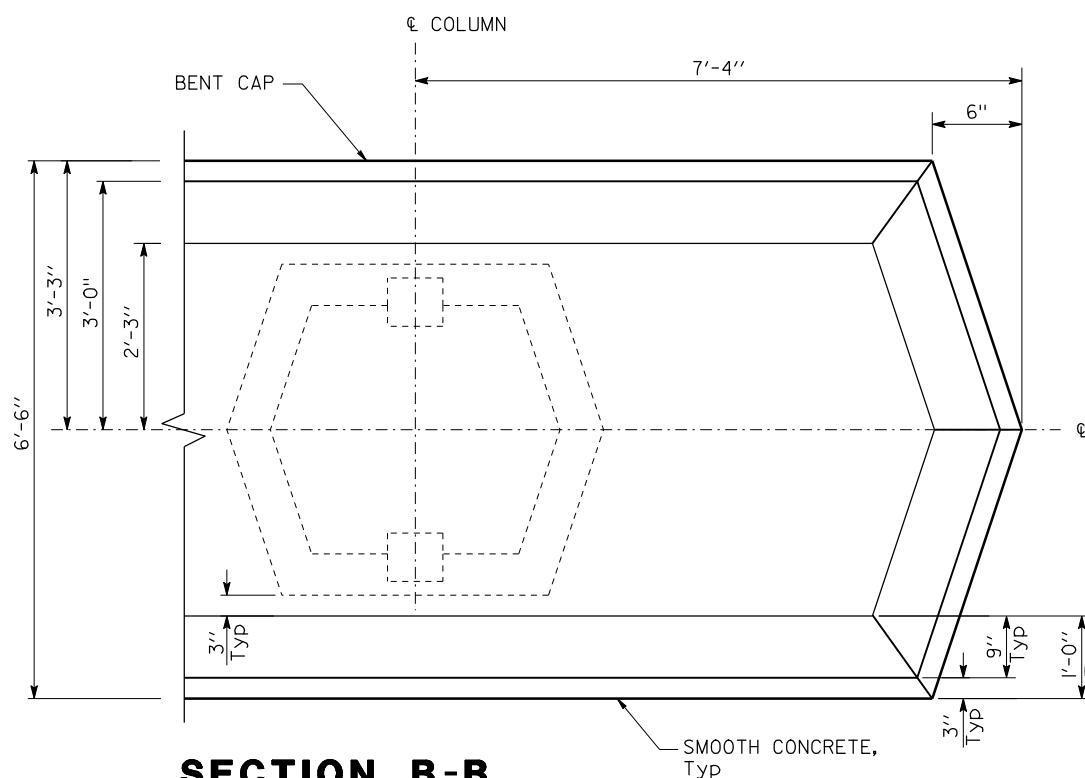
NOTES:

1. FOR CONCRETE BARRIER TYPE 26 (MOD), SEE "ARCHITECTURAL TREATMENT NO. 7" SHEET.
2. METAL PICKET RAILING NOT SHOWN FOR CLARITY, SEE "ARCHITECTURAL TREATMENT NO. 8" FOR DETAILS.

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN BY	DAVID ALVAREZ	CHECKED	HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO.	G STREET OVERCROSSING
	DETAILS BY	ISAAC TASABIA	CHECKED	RICHARD MELKO			42C0669	ARCHITECTURAL TREATMENT NO. 2
	QUANTITIES BY	DON NGUYEN-TAN	CHECKED	HILARIO TUAZON			POST MILE	
			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES SHEET OF 05-30-12 21 35

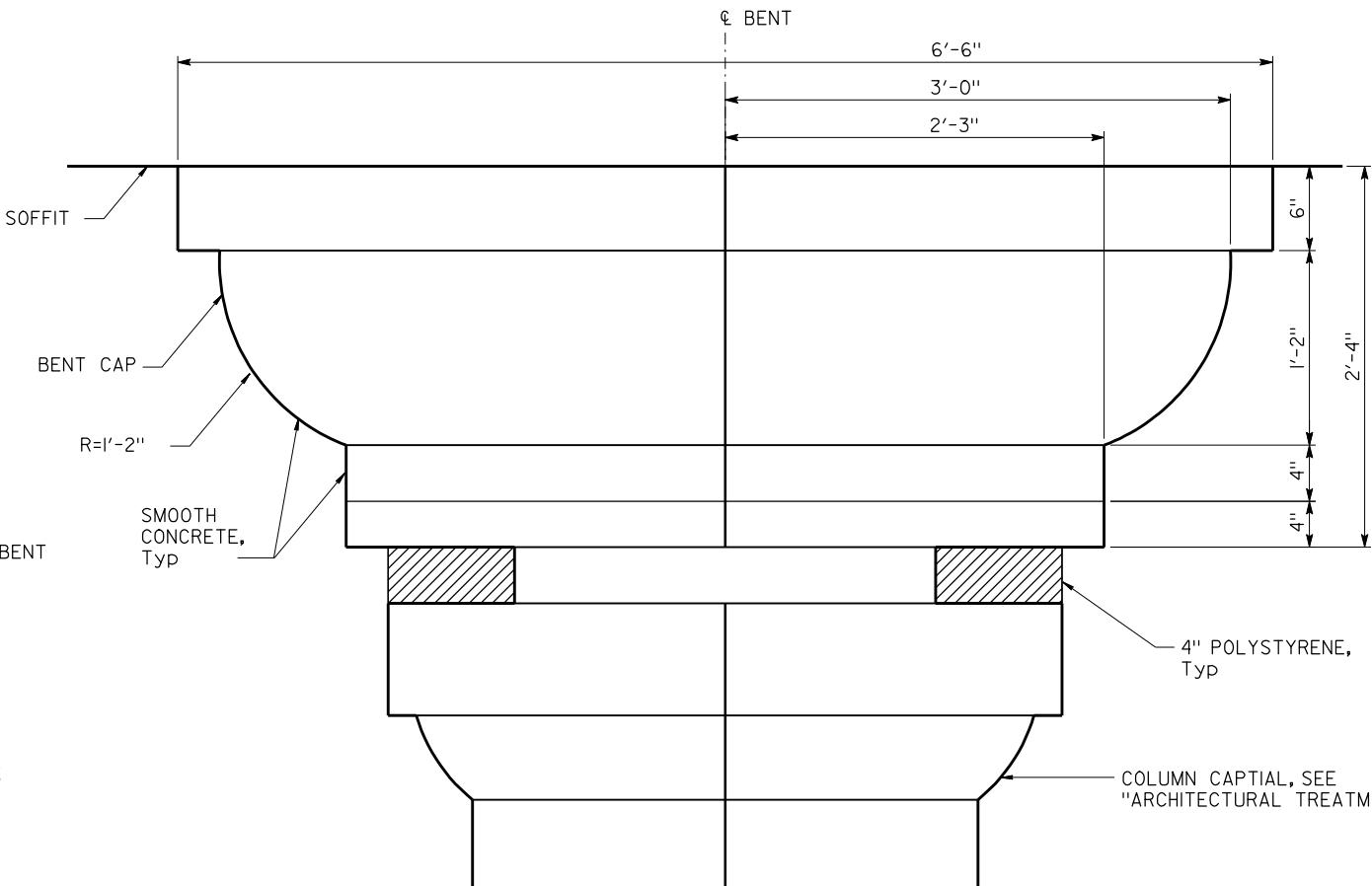
NOTES:

1. FOR CONCRETE BARRIER TYPE 26 (MOD), SEE "ARCHITECTURAL TREATMENT NO. 7" SHEET.
2. FOR METAL PICKET RAILING, SEE "ARCHITECTURAL TREATMENT NO. 8" FOR DETAILS.



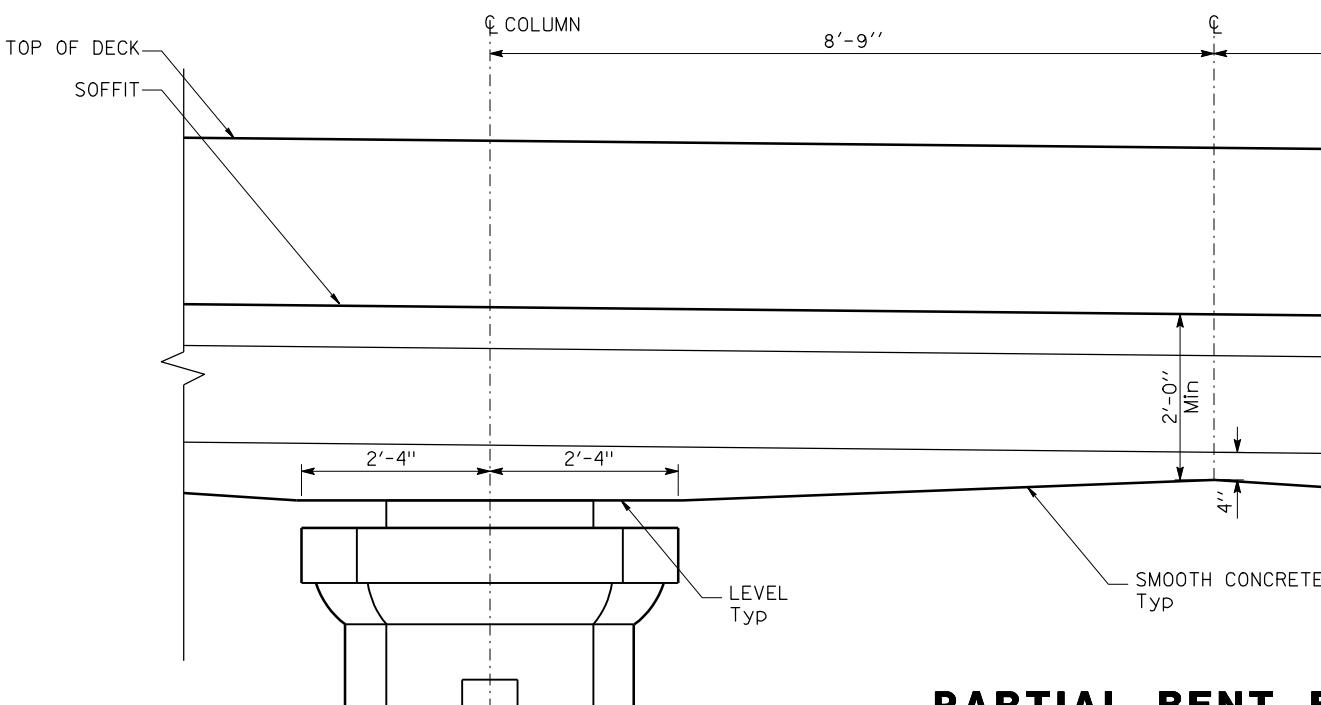
SECTION B-B

NO SCALE



SECTION C-C

NO SCALE



PARTIAL BENT ELEVATION

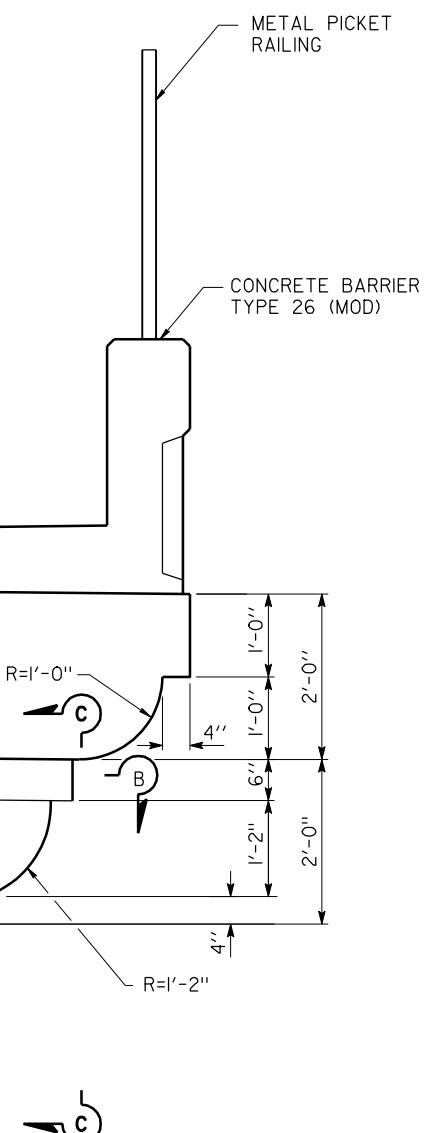
NO SCALE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre				

Richard Melko
REGISTERED CIVIL ENGINEER 05-30-12
RICHARD MELKO No. C 61617 Exp. 06/30/13
REGISTERED PROFESSIONAL ENG. ING.
CIVIL STATE OF CALIFORNIA

PLANS APPROVAL DATE
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

CALIFORNIA HIGH-SPEED RAIL AUTHORITY



G STREET OVERCROSSING ARCHITECTURAL TREATMENT NO. 3

DESIGN BY DAVID ALVAREZ	CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO.	G STREET OVERCROSSING	
DETAILS BY ISAAC TASABIA	CHECKED RICHARD MELKO			42C0669		
QUANTITIES BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON			POST MILE		
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1
CHSTP CONTRACT NO. DISREGARD PRINTS BEARING EARLIER REVISION DATES						
FILE => 42c0669-u-archd+03.dgn						
REVISION DATES SHEET OF 05-30-12 22 35						

NOTES:

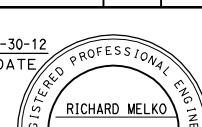
1. RETAINING WALLS NOT SHOWN, SEE RETAINING WALL PLANS.
2. METAL PICKET RAILING NOT SHOWN FOR CLARITY, SEE "ARCHITECTURAL TREATMENT NO. 8" FOR DETAILS.

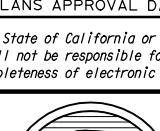
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	HEET NO.	TOTAL SHEETS
06	Fre				

Richard Melko 05-30-12
 REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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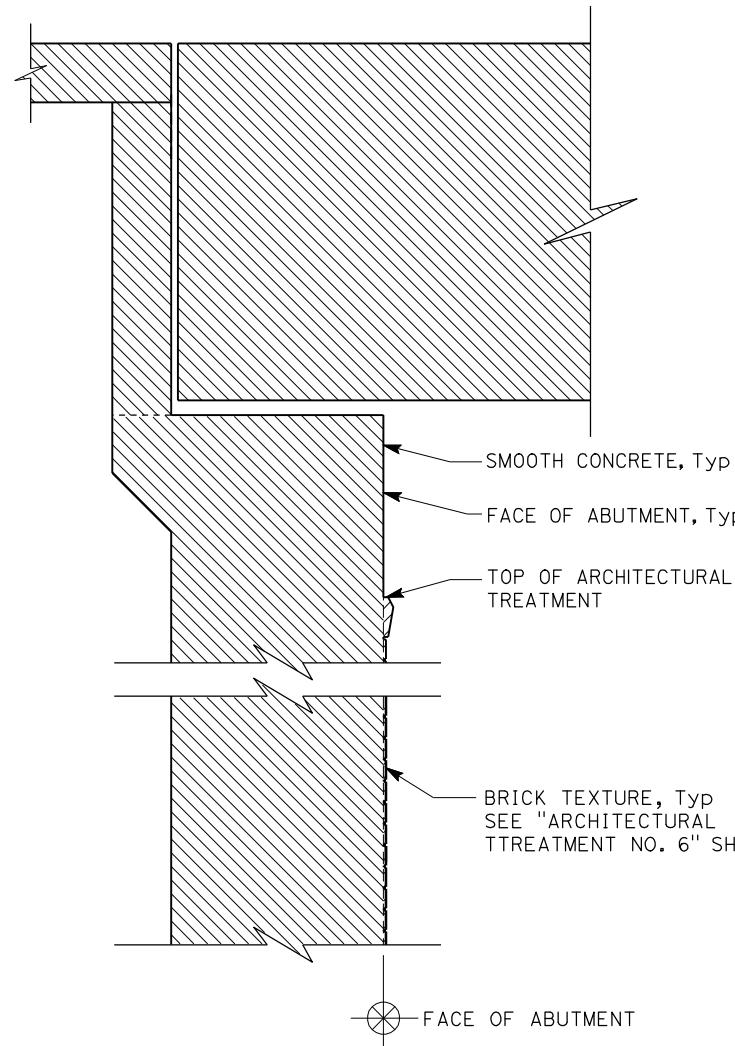




CALIFORNIA
 HIGH-SPEED RAIL AUTHORITY

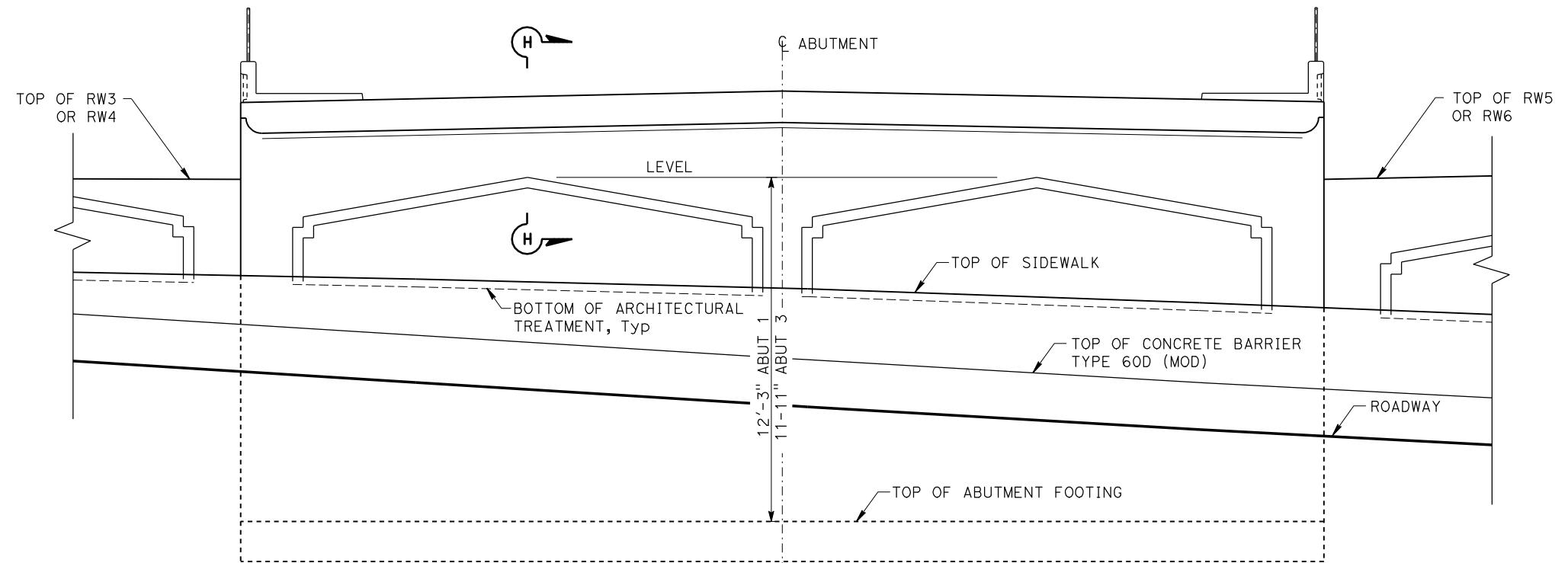


CALIFORNIA HIGH-SPEED RAIL AUTHORITY



SECTION H-H

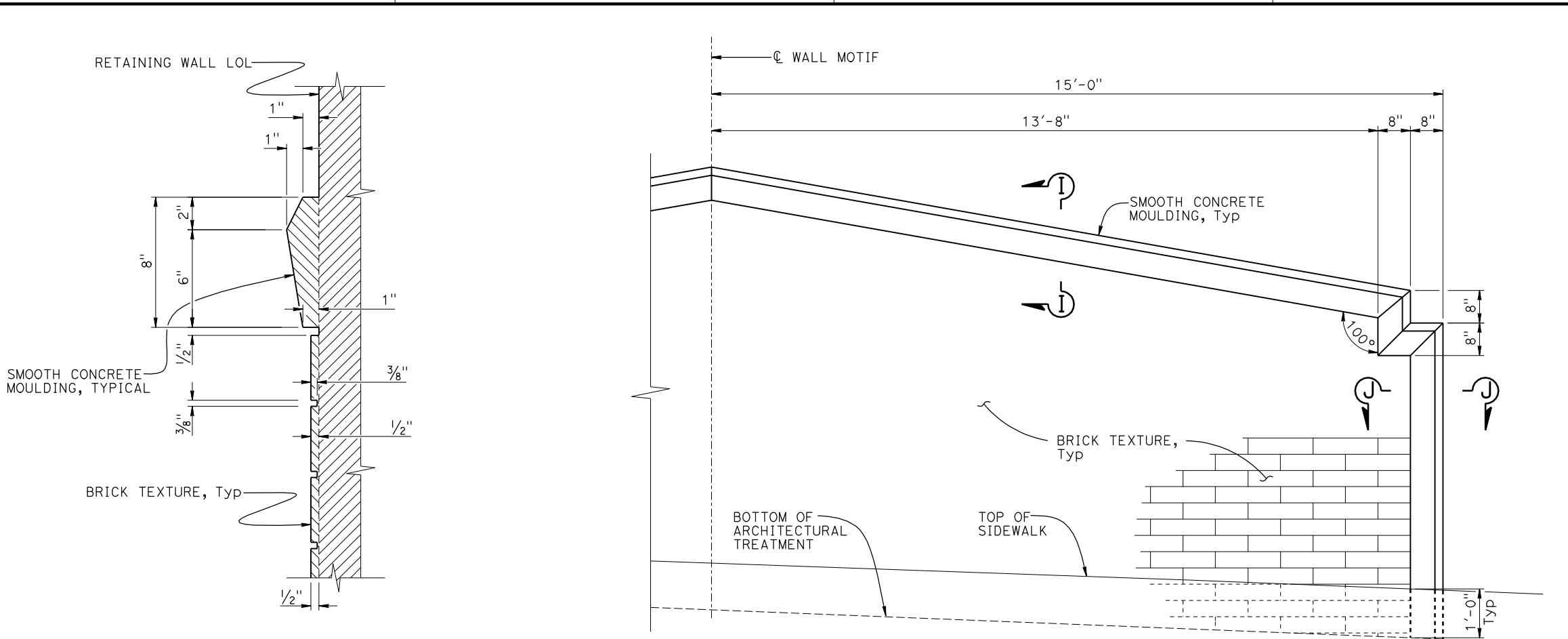
NO SCALE



TYPICAL ABUTMENT ELEVATION

NO SCALE

	DESIGN	BY DAVID ALVAREZ	CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0669	G STREET OVERCROSSING			
	DETAILS	BY ISAAC TASABIA	CHECKED RICHARD MELKO			POST MILE	ARCHITECTURAL TREATMENT NO. 5			
	QUANTITIES	BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON							
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
						05-30-12			24	35

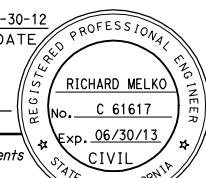


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	HEET No.	TOTAL SHEETS
06	Fre				

RICHARD MELKO 05-30-12 REGISTERED CIVIL ENGINEER DATE

POLICE APPROVAL DATE _____

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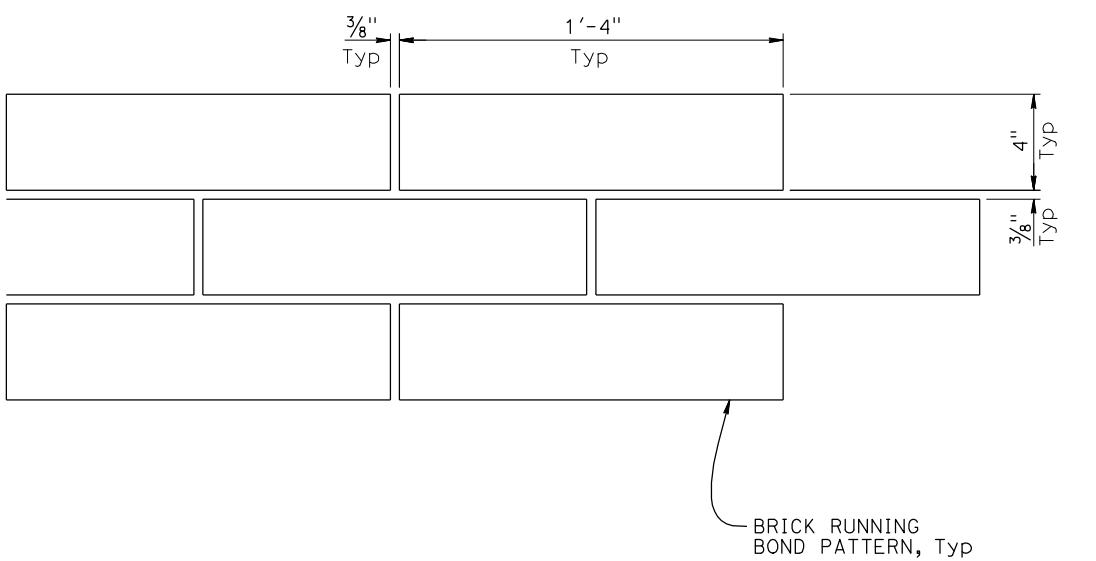
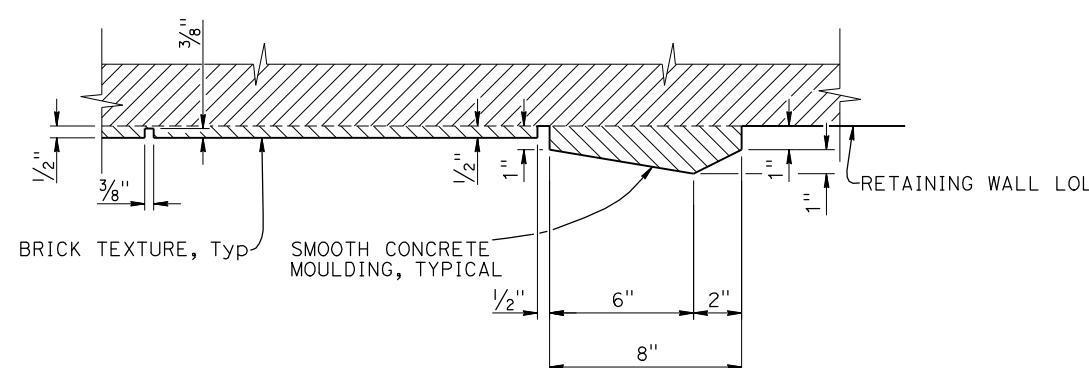




TE:
TAL PICKET RAIL NOT SHOWN FOR CLARITY,
E "ARCHITECTURAL TREATMENT NO. 8" SHEET.



CALIFORNIA HIGH-SPEED RAIL AUTHORITY



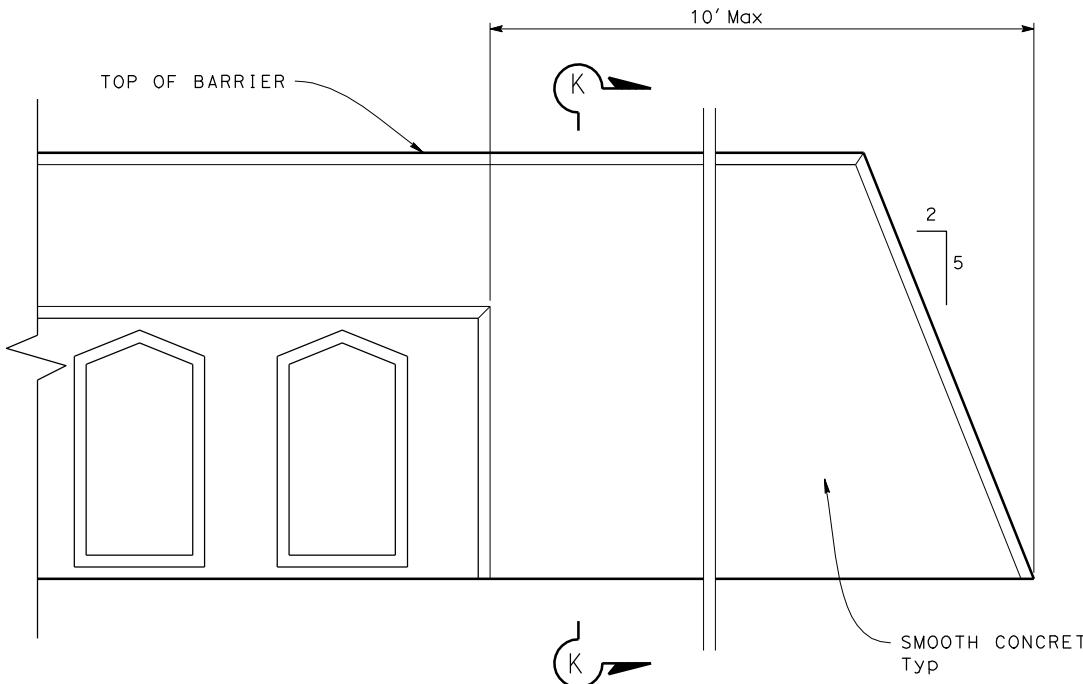
	DESIGN	BY M.G. REYES-GUTIERREZ	CHECKED HILARIO TUAZON		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0669	G STREET OVERCROSSING	
	DETAILS	BY K. CHONKRIA	CHECKED DON NGUYEN-TAN				POST MILE	ARCHITECTURAL TREATMENT NO. 6	
	QUANTITIES	BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON						
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET OF
						05-24-12 05-28-12		25 35	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre				

Richard Melko
REGISTERED CIVIL ENGINEER 05-30-12

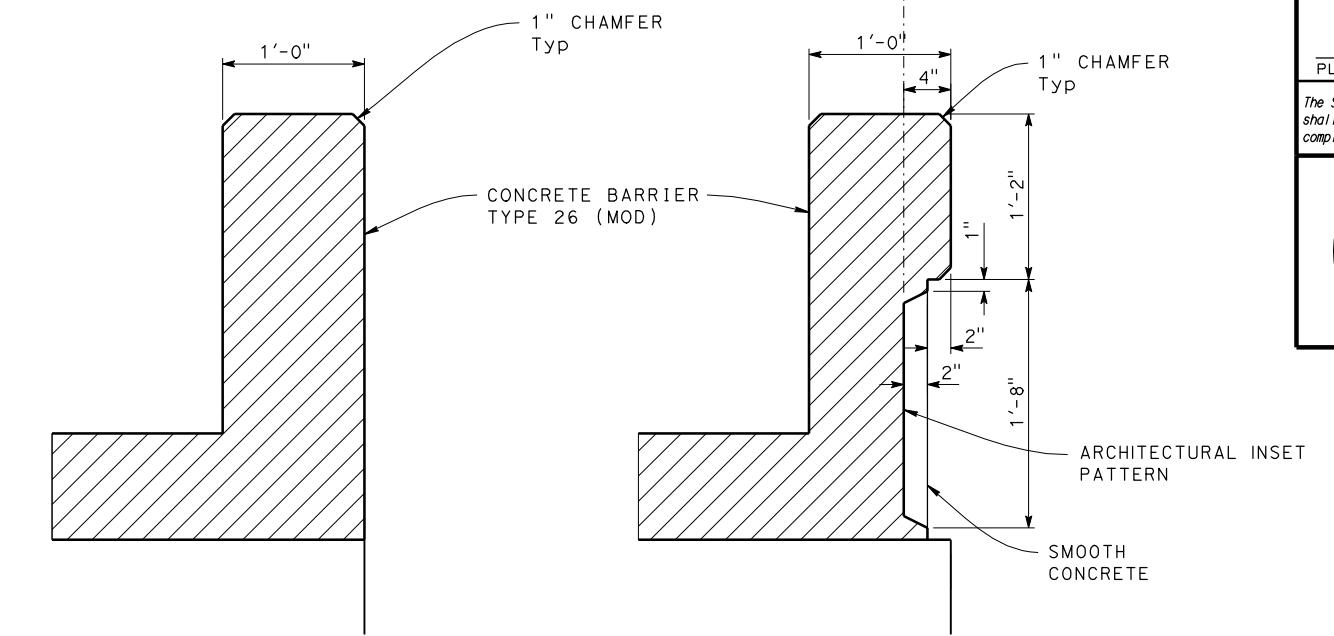
REGISTERED PROFESSIONAL ENGINEER RICHARD MELKO No. C 61617 Exp. 06/30/13 STATE OF CALIFORNIA CIVIL

PLANS APPROVAL DATE The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



**CONCRETE BARRIER TYPE 26 (MOD)
END TREATMENT**

NO SCALE

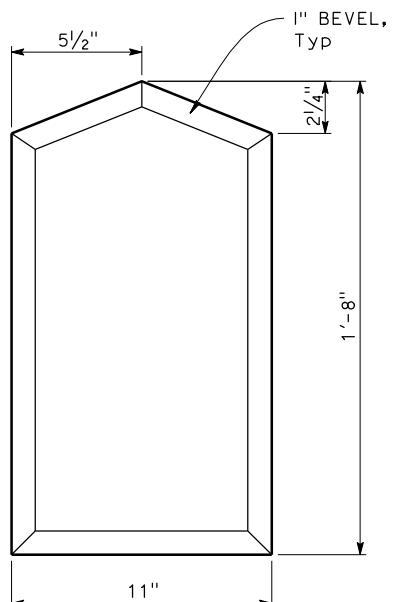
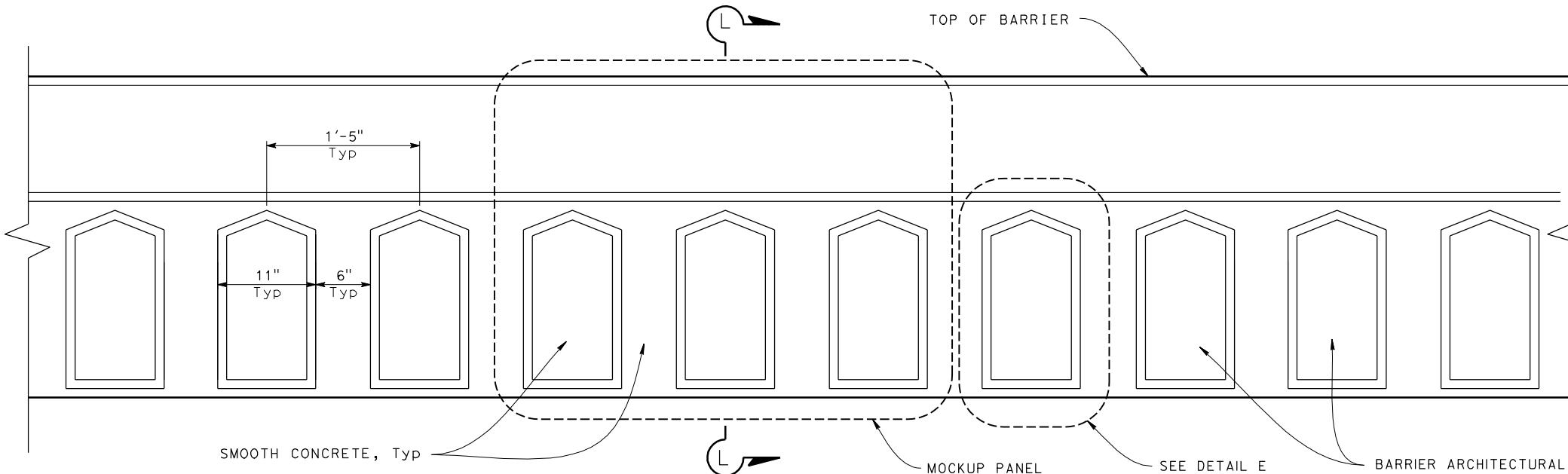


SECTION K-K

NO SCALE

SECTION L-L

NO SCALE



DETAIL E

NO SCALE

CONCRETE BARRIER TYPE 26 (MOD) ARCHITECTURAL TREATMENT

NO SCALE

NOTE:
METAL PICKET RAILING NOT SHOWN FOR CLARITY, SEE "ARCHITECTURAL TREATMENT NO. 8" SHEET.

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN BY	DAVID ALVAREZ	CHECKED BY	HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO.	G STREET OVERCROSSING	
	DETAILS BY	ISAAC TASABIA	CHECKED BY	RICHARD MELKO			42C0669	ARCHITECTURAL TREATMENT NO. 7	
	QUANTITIES BY	DON NGUYEN-TAN	CHECKED BY	HILARIO TUAZON			POST MILE		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 05-30-12	OF 26 35

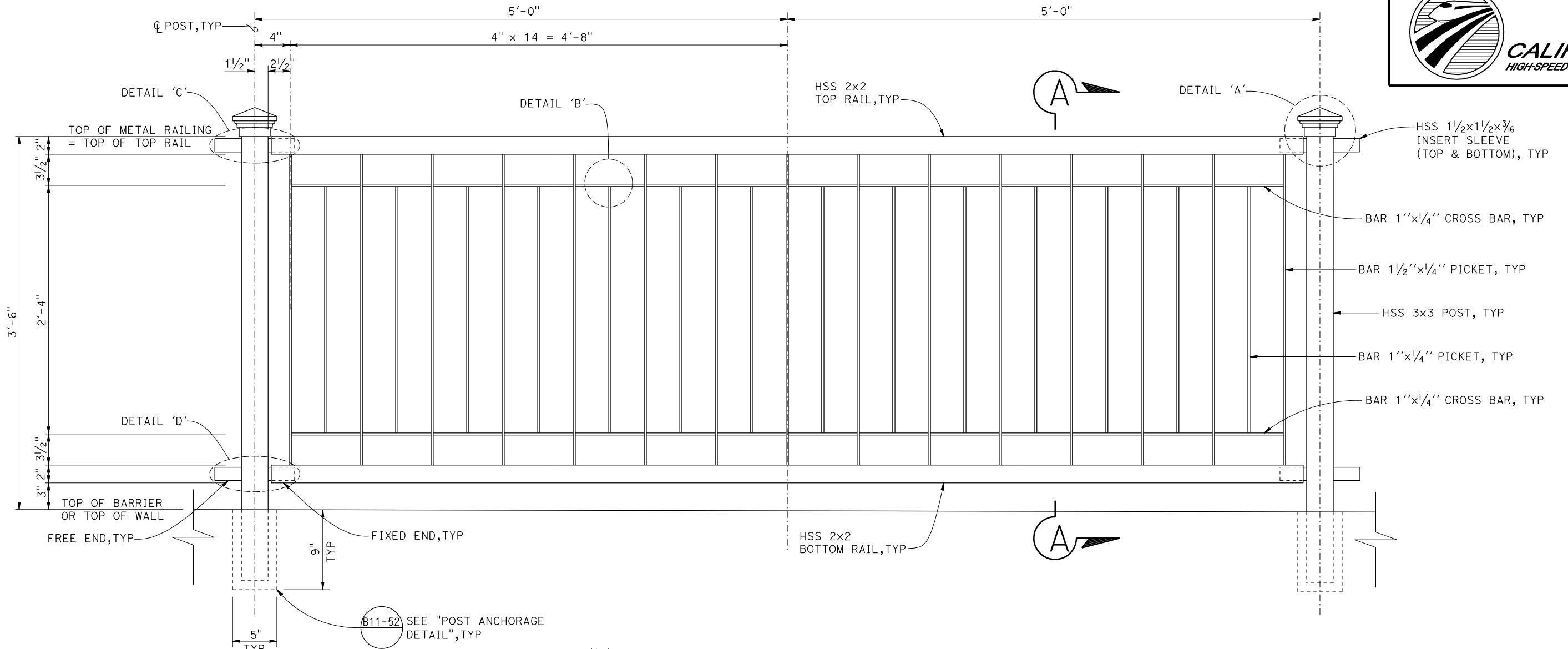
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre				

Richard Melko
REGISTERED CIVIL ENGINEER 05-30-12
RICHARD MELKO No. C 61617
REG. PROFESSIONAL ENG. ING.
Exp. 06/30/13
CIVIL STATE OF CALIFORNIA

PLANS APPROVAL DATE
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CALIFORNIA
HIGH-SPEED RAIL AUTHORITY



PARTIAL ELEVATION - METAL PICKET RAILING

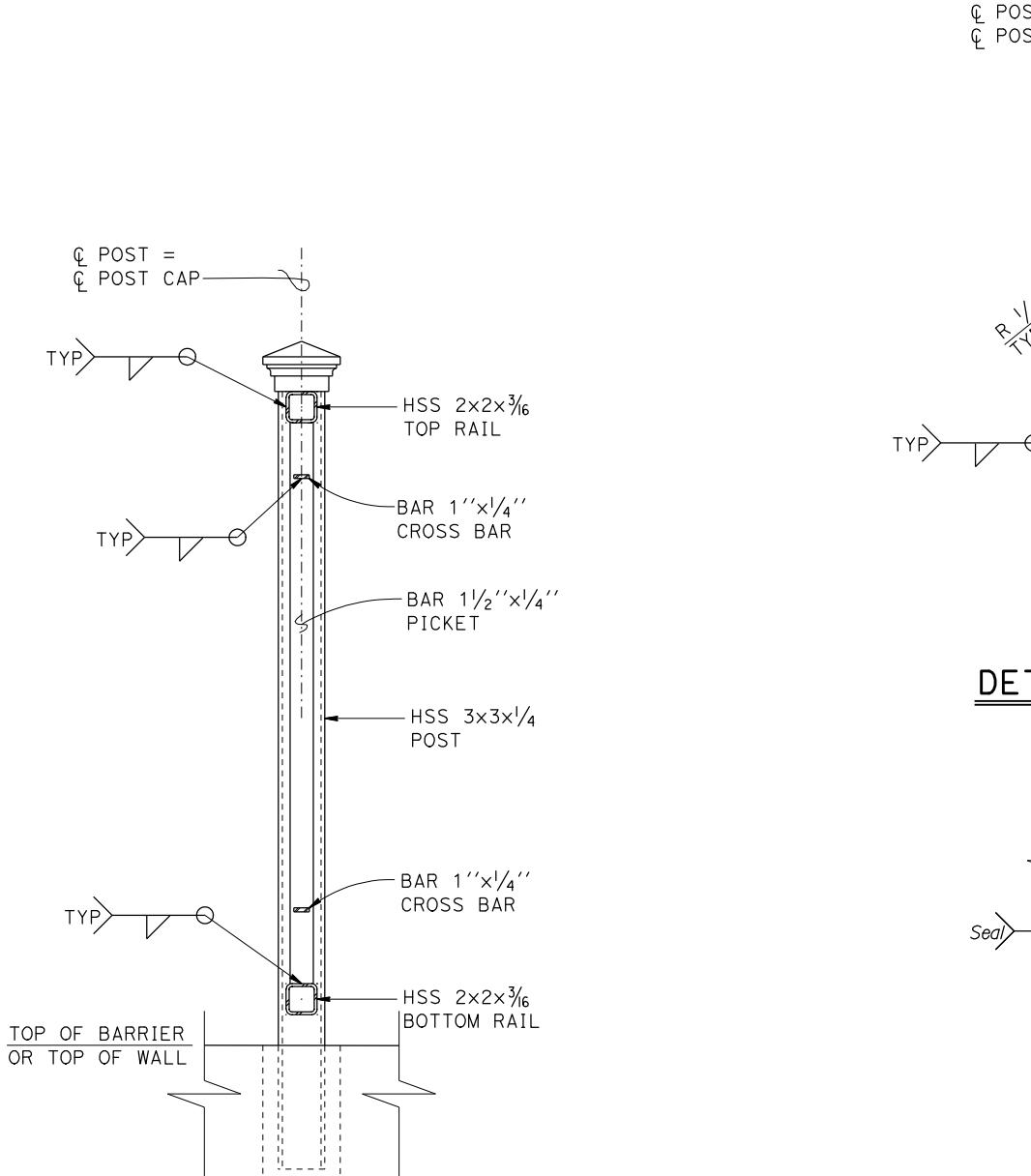
2" = 1'-0"

				DESIGN BY FRITZ HOFFMAN CHECKED RICH MELKO	DETAILS BY PETE VON SAVOYE CHECKED RICH MELKO	QUANTITIES BY DON NGUYEN-TAN CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0667	POST MILE	G STREET OVERCROSSING ARCHITECTURAL TREATMENT DETAILS NO. 8
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)											
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3											
UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1 CHSTP CONTRACT NO. DISREGARD PRINTS BEARING EARLIER REVISION DATES → 05-30-12 27 35											

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre				

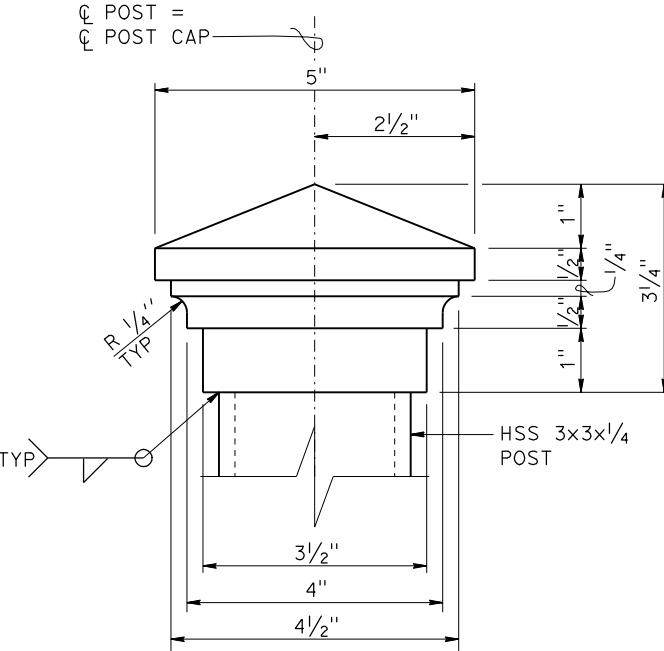
Richard Melko
REGISTERED CIVIL ENGINEER 05-30-12
RICHARD MELKO No. C 61617
Exp. 06/30/13
REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA
CIVIL
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PLANS APPROVAL DATE
CALIFORNIA HIGH-SPEED RAIL AUTHORITY



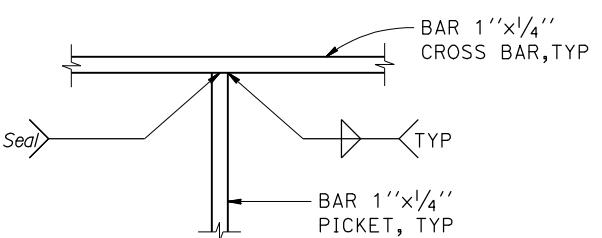
SECTION A-A

2" = 1'-0"



DETAIL 'A' - POST CAP

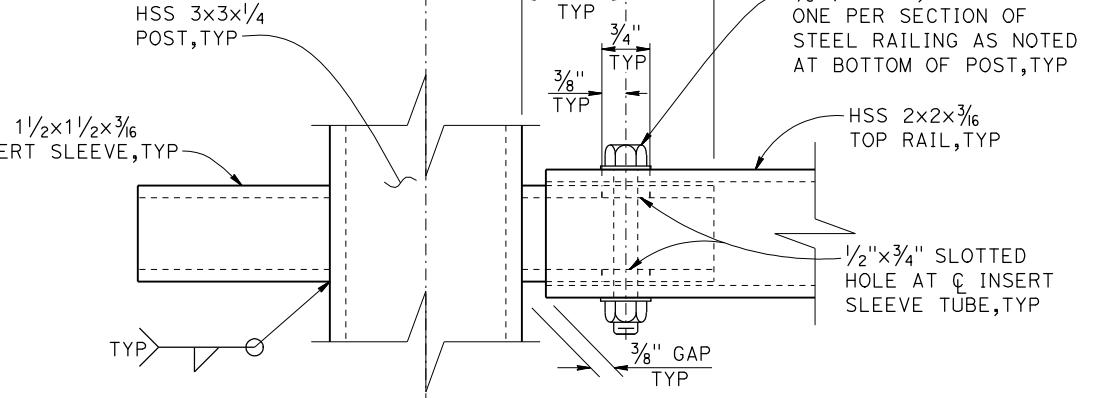
NO SCALE



DETAIL 'B'

NO SCALE

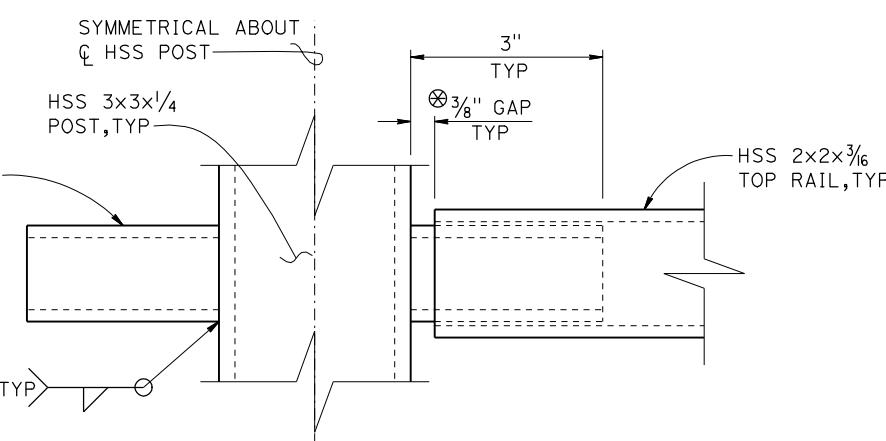
SYMMETRICAL ABOUT
HSS POST, EXCEPT
AS NOTED



FREE END

FIXED END

DETAIL 'D'
NO SCALE



⊗ Note:
3/4" gap at the "Free End" of metal picket railing
at the BB & EB sections over the bridge joint seals.

DETAIL 'C'

NO SCALE

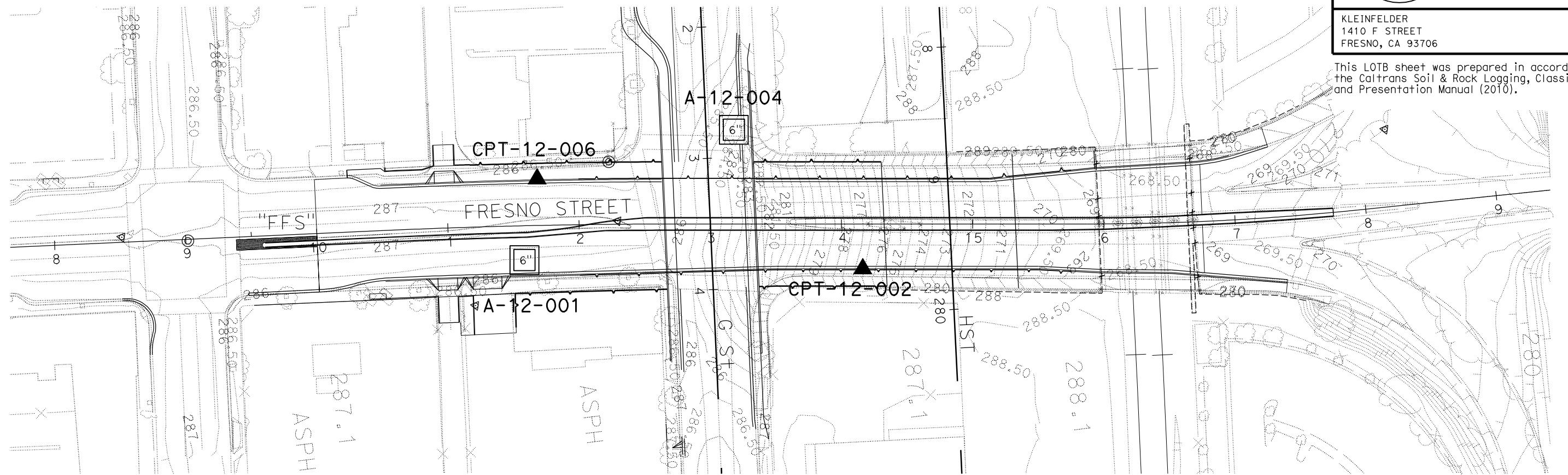
Notes:

1. Embedded post into post cap 1 1/2" minimum.
2. Post cap fabrication by the Contractor as approved by the Engineer. Minimum material thickness 3/16".
3. Post cap may be modified or substituted with pre-manufactured post cap by the Contractor as approved by the Engineer.
4. Paint after fabrication.
5. Posts shall be vertical, typical.
6. The "Fixed End" of each metal picket railing section has one bolt at the bottom rail. The "Free End" does not have a bolt at the top or bottom rail, typical.
7. Omit Insert Sleeve on the outside of each end post.
8. Metal picket railing shall be 3 1/2" maximum clear from light posts mounted on top of concrete barrier type 26 (mod).

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY FRITZ HOFFMAN	CHECKED RICH MELKO	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0667	G STREET OVERCROSSING ARCHITECTURAL TREATMENT DETAILS NO. 9	
	DETAILS	BY PETE VON SAVOYE	CHECKED RICH MELKO			POST MILE		
	QUANTITIES	BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON			UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	FILE => 42c0667-u-archd+09.dgn	REVISION DATES	SHEET OF 28 35	DATE PLOTTED => 30-MAY-2012 TIME PLOTTED => 16:35 USERNAME => s120745

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre				
 N REGISTERED CIVIL ENGINEER DATE NATHAN L. DAHLEN No. C 71344 Exp. 12/31/12 CIVIL STATE OF CALIFORNIA					
PLANS APPROVAL DATE					
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 CALIFORNIA HIGH-SPEED RAIL AUTHORITY					
KLEINFELDER 1410 F STREET FRESNO, CA 93706					

This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010).



BENCHMARKS

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
4-SON-116 FILE 01 OF 03
PHOTO ASC: 0820-17 PHOTO DATE: 10-23-07 PHOTO SCALE 1:3000
MAP ASC: 0820-17 MAP COMPLETION DATE: 3-31-08
FILENAME: 408217e0501.dgn
DIGITAL COMPILATION BY: RADMAN AERIAL SURVEYS
VERTICAL DATUM: NAVD 1988
COORDINATE SYSTEM: CCS 83 (1991.35) ZONE 2
UNITS: US SURVEY FEET MAP SCALE 1"= 50' CONTOUR INTERVAL: 1'
DESIGN PLANE: 32R GO= 6065251.6352,1767251.6352,-214748.3648

PLAN
1"=40'

Note:

1. - Marl M-10 truck mounted rig with automatic hammer.

STATE OF
CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 6

BRIDGE NO.
42C0669

POST MILE

G STREET OVERCROSSING LOG OF TEST BORINGS 1 OF 7

DESIGN BY DAVID ALVAREZ	CHECKED HILARIO TUAZON
DETAILS BY AL SANCHEZ	CHECKED NATHAN DAHLEN
QUANTITIES BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON

ORIGINAL SCALE IN INCHES
FOR REDUCED PLANS

0

1

2

3

UNIT: 3591 CONTRACT NO.: 06-2HT201
PROJECT NO. & PHASE: 0612000239-1

CHSTP CONTRACT NO.

DISREGARD PRINTS BEARING
EARLIER REVISION DATES

REVISION DATES SHEET OF
5-07-12 29 35

FOR PLAN VIEW AND ADDITIONAL NOTES, SEE
"LOG OF TEST BORINGS" SHEET 1 OF 7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fres				
 REGISTERED CIVIL ENGINEER X NATHAN L. DAHLEN No. C 71344 Exp. 12/31/12 REGISTERED PROFESSIONAL ENGINEER NATHAN L. DAHLEN No. C 71344 Exp. 12/31/12 CIVIL STATE OF CALIFORNIA					
PLANS APPROVAL DATE					
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 CALIFORNIA HIGH-SPEED RAIL AUTHORITY					

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200

190

190

180

180

7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00

 26.16' Rt Sta. 11+57.73
 "FFS" Line

A-12-001

Elev 286.60'

6"

 Silty SAND (SM): medium dense, brown, moist, coarse to fine grained,
 weakly cemented
 -medium to fine grained sand

Sandy SILT (ML): very dense, dark gray, moist, fine grained

-dense, gray brown

 -very dense, brown to dark brown, $PP > 4.5$ tsf

-dense, weakly cemented

 Poorly Graded SAND with SILT (SP-SM): dense, yellow brown, moist,
 medium to fine grained

 - $PP > 4.5$ tsf

-very dense, coarse to fine grained sand

Sandy SILT (ML): dense, dark brown, moist, fine grained, trace of clay

SILT (ML): very stiff, gray brown, moist, trace of clay

 - $PP > 4.5$ tsf

 - $PP = 2.5$ tsf

Sandy SILT (ML): dense, red brown, moist, fine grained

 - $PP > 4.5$ tsf

Sandy SILT (ML): very dense, red brown, moist, fine grained

 - $PP > 4.5$ tsf

Silty SAND (SM): very dense, gray brown, moist, fine grained

 4-30-12
 Terminated at Elev 210.10'
 ER_i = 74.3%

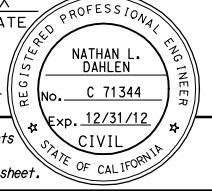
PROFILE

 HOR. 1"=40'
 VER. 1"=10'

DESIGN	BY DAVID ALVAREZ	CHECKED HILARIO TUAZON
DETAILS	BY AL SANCHEZ	CHECKED NATHAN DAHLEN
QUANTITIES	BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON

STATE OF	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.
CALIFORNIA	STRUCTURE DESIGN	42C0669
DEPARTMENT OF TRANSPORTATION	DESIGN BRANCH 6	POST MILE

FOR PLAN VIEW AND ADDITIONAL NOTES, SEE
"LOG OF TEST BORINGS" SHEET 1 OF 7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre				
 REGISTERED CIVIL ENGINEER <input checked="" type="checkbox"/> DATE  NATHAN L. DAHLEN No. C 71344 Exp. 12/31/12 CIVIL STATE OF CALIFORNIA					
PLANS APPROVAL DATE					
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 CALIFORNIA HIGH-SPEED RAIL AUTHORITY					
KLEINFELDER 1410 F STREET FRESNO, CA 93706					

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7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00

PROFILE

 HOR. 1"=40'
 VER. 1"=10'

 4/26/12
 CPT terminated at Elev 187.38'

24 16 8 0 40 80 120 160 200 240 280 320 360 400 440 480 520 560 600 640 680 720 760 800

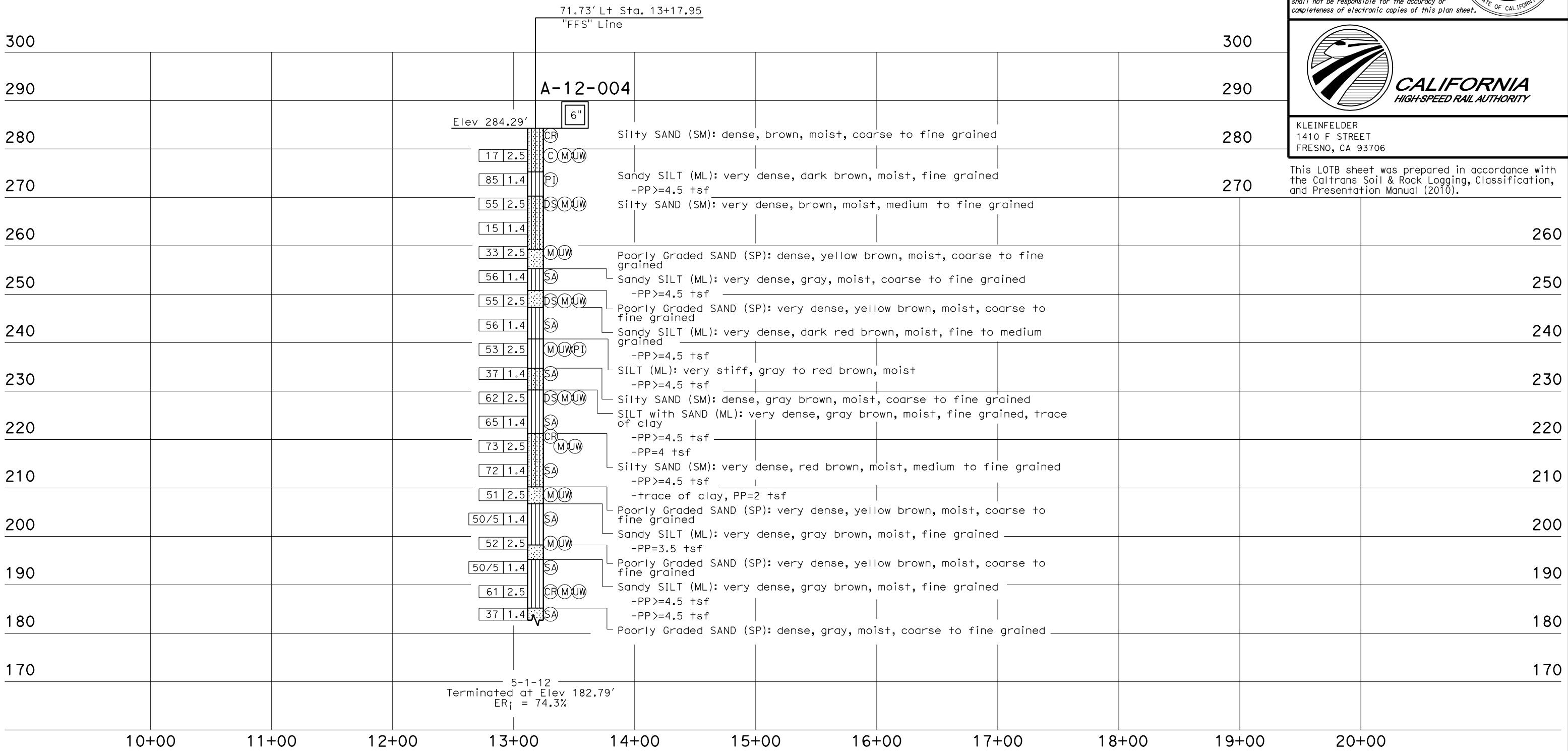
Tip Bearing (tsf)

	DESIGN	BY DAVID ALVAREZ	CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DEPARTMENT OF TRANSPORTATION DESIGN BRANCH 6	BRIDGE NO. 42C0669	G STREET OVERCROSSING	
	DETAILS	BY AL SANCHEZ	CHECKED NATHAN DAHLEN		POST MILE	LOG OF TEST BORINGS 3 OF 7	
	QUANTITIES	BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON				
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES →
						REVISION DATES	SHEET OF 31 35

FOR PLAN VIEW AND ADDITIONAL NOTES, SEE
"LOG OF TEST BORINGS" SHEET 1 OF 7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre				
 REGISTERED CIVIL ENGINEER X <small>NATHAN L. DAHLEN No. C 71344 Exp. 12/31/12 CIVIL STATE OF CALIFORNIA</small>					
PLANS APPROVAL DATE					
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KLEINFELDER 1410 F STREET FRESNO, CA 93706					

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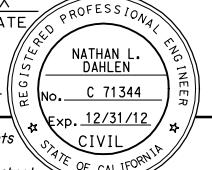


PROFILE

HOR. 1"=40'
VER. 1"=10'

DESIGN			BY DAVID ALVAREZ	CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN		BRIDGE NO. 42C0669 POST MILE	G STREET OVERCROSSING		
DETAILS			BY AL SANCHEZ	CHECKED NATHAN DAHLEN		DESIGN BRANCH 6			LOG OF TEST BORINGS 4 OF 7		
QUANTITIES			BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON							
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.	DISREGARD PRINTS BEARING EARLIER REVISION DATES →	REVISION DATES	SHEET OF 32 35	
						FILE => 42c0669-z-ltb04-a.dgn					

FOR PLAN VIEW AND ADDITIONAL NOTES, SEE
"LOG OF TEST BORINGS" SHEET 1 OF 7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre				
 REGISTERED CIVIL ENGINEER X  NATHAN L. DAHLEN No. C 71344 Exp. 12/31/12 CIVIL STATE OF CALIFORNIA					
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 CALIFORNIA HIGH-SPEED RAIL AUTHORITY					

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200

190

190

180

180

170

170

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00

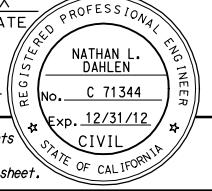
PROFILE
HOR. 1"=40'
VER. 1"=10'

DESIGN	BY DAVID ALVAREZ	CHECKED HILARIO TUAZON
DETAILS	BY AL SANCHEZ	CHECKED NATHAN DAHLEN
QUANTITIES	BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 6

BRIDGE NO.
42C0669
POST MILE

G STREET OVERCROSSING
LOG OF TEST BORINGS 5 OF 7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO. TOTAL SHEETS
06	Fres			
 REGISTERED CIVIL ENGINEER X  NATHAN L. DAHLEN No. C 71344 Exp. 12/31/12 CIVIL STATE OF CALIFORNIA				
PLANS APPROVAL DATE <small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>				
 CALIFORNIA HIGH-SPEED RAIL AUTHORITY				
KLEINFELDER 1410 F STREET FRESNO, CA 93706				

This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010).

CEMENTATION

Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

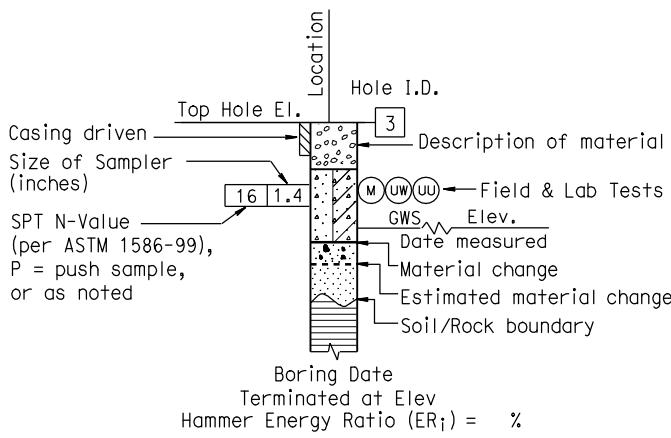
BOREHOLE IDENTIFICATION

Symbol	Hole Type	Description
	A	Auger Boring (hollow or solid stem bucket)
	R	Rotary drilled boring (conventional)
	RW	Rotary drilled with self-casing wire-line
	RC	Rotary core with continuously-sampled, self-casing wire-line
	P	Rotary percussion boring (air)
	R	Rotary drilled diamond core
	HD	Hand driven (1-inch soil tube)
	HA	Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778)
	O	Other (note on LOTB)

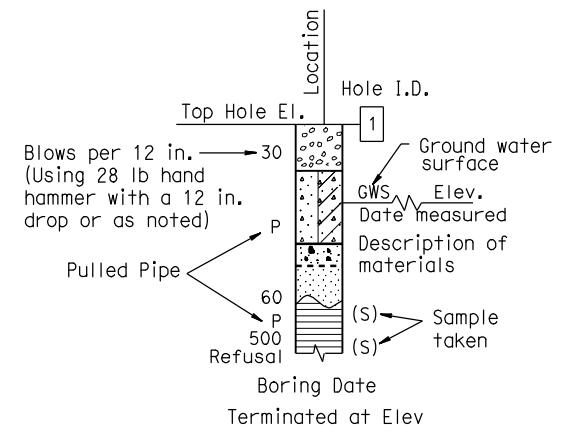
Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS

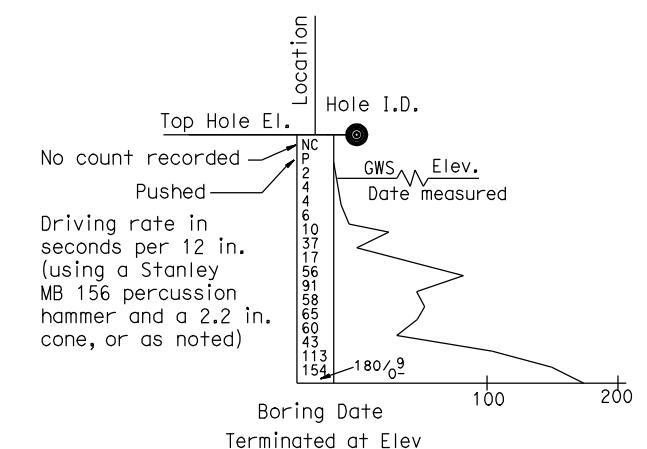
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



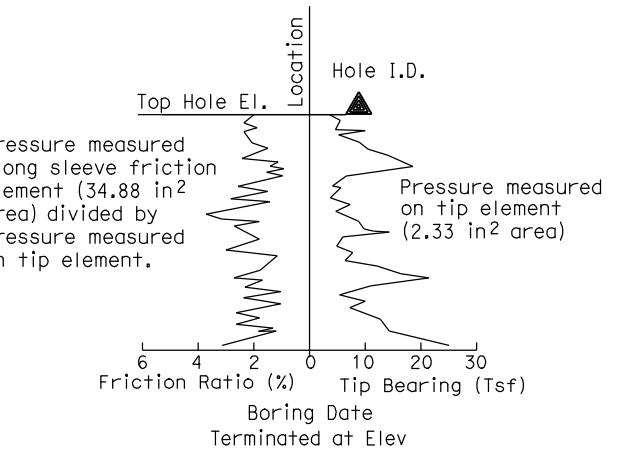
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) BORING

DESIGN BY DAVID ALVAREZ DETAILS BY AL SANCHEZ QUANTITIES BY DON NGUYEN-TAN	CHECKED HILARIO TUAZON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 6	BRIDGE NO. 42C0669 POST MILE	G STREET OVERCROSSING	
	CHECKED NATHAN DAHLEN			LOG OF TEST BORINGS 6 OF 7	
	CHECKED HILARIO TUAZON			UNIT: 3591 CONTRACT NO.: 06-2HT201 PROJECT NO. & PHASE: 0612000239-1	CHSTP CONTRACT NO.
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	FILE => 42c0669-z-ltb06-a.dgn	REVISION DATES	SHEET OF 34 35

This LTB sheet was prepared in accordance with
the Caltrans Soil & Rock Logging, Classification,
and Presentation Manual (2010).

GROUP SYMBOLS AND NAMES			
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND	CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
GP	Poorly-graded GRAVEL Poorly-graded GRAVEL with SAND	CL	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND	CL-ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)	ML	ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
GP-GM	Poorly-graded GRAVEL with SILT Poorly-graded GRAVEL with SILT and SAND	OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
GP-GC	Poorly-graded GRAVEL with CLAY (or SILTY CLAY) Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)	OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
GM	SILTY GRAVEL SILTY GRAVEL with SAND	OL	FAT CLAY FAT CLAY with SAND FAT CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND	OL	ELASTIC SILT ELASTIC SILT with SAND ELASTIC SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND	OL	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL	CH	SILTY SAND SILTY SAND with GRAVEL
SP	Poorly-graded SAND Poorly-graded SAND with GRAVEL	CH	ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL	MH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	MH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
SP-SM	Poorly-graded SAND with SILT Poorly-graded SAND with SILT and GRAVEL	MH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
SP-SC	Poorly-graded SAND with CLAY (or SILTY CLAY) Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	MH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
SM	SILTY SAND SILTY SAND with GRAVEL	OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
SC	CLAYEY SAND CLAYEY SAND with GRAVEL	OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL	OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
PT	PEAT	OL/OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	COBBLES COBBLES and BOULDERS BOULDERS	OL/OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND

FIELD AND LABORATORY TESTING

- (C) Consolidation (ASTM D 2435)
- (CL) Collapse Potential (ASTM D 5333)
- (CP) Compaction Curve (ASTM D 1557)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767)
- (DS) Direct Shear (ASTM D 3080)
- (EI) Expansion Index (ASTM D 4829)
- (M) Moisture Content (ASTM D 2216)
- (OC) Organic Content-% (ASTM D 2974)
- (P) Permeability (CTM 220)
- (PA) Particle Size Analysis (ASTM D 422)
- (PI) Plasticity Index (AASHTO T 90)
Liquid Limit (AASHTO T 89)
- (PL) Point Load Index (ASTM D 5731)
- (PM) Pressure Meter
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (UC) Unconfined Compression-Soil (ASTM D 2166)
Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 4767)

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N ₆₀ (Blows / 12 in.)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

MOISTURE

Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

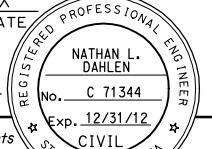
PERCENT OR PROPORTION OF SOILS

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5% - 10%
Little	15% - 25%
Some	30% - 45%
Mostly	50% - 100%

PARTICLE SIZE

Description	Size (in.)
Boulder	Greater than 12
Cobble	3 - 12
Gravel	Coarse 3/4 - 3
	Fine 1/5 - 3/4
Sand	Coarse 1/16 - 1/5
	Medium 1/64 - 1/16
Fine	1/300 - 1/64
	Less than 1/300

G STREET OVERPASSING LOG OF TEST BORINGS 7 OF 7

DIST	COUNTY	ROUTE	POST MILES	SHEET NO.	TOTAL SHEETS
06	Fre				
 REGISTERED CIVIL ENGINEER X  NATHAN L. DAHLEN No. C 71344 Exp. 12/31/12 CIVIL STATE OF CALIFORNIA CALIFORNIA HIGH-SPEED RAIL AUTHORITY KLEINFELDER 1410 F STREET FRESNO, CA 93706					